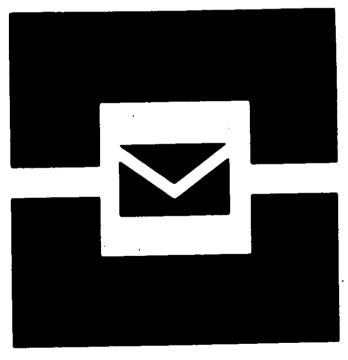


1973-1974

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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.

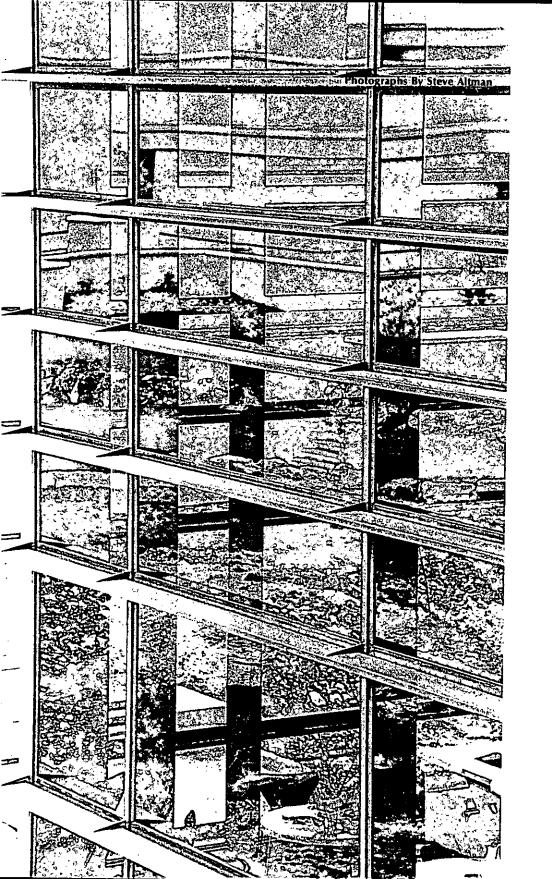


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1973-74 Academic Calendar

Fall Semester

Faculty Reports August 27 Registration August 28-30 Labor Day Holiday September 3 Classes begin 8:00 a.m. September 4 Last day to apply for tuition refund September 10 Thanksgiving Holiday begins 10:00 p.m. November 21 Classes resume 8:00 a.m. November 26 Last day to withdraw with a grade of W. 4:00 p.m. December 7 Last day of classes

December 14 Last day of classes
December 17-21 Final Examination

December 21 Semester closes 5:00 p.m.

Spring Semester

January 2

January 3, 4, 7

January 8-10

January 14

January 18

April 12

April 22

Professional develop days
Registration
Classes begin 8:00 a.m.
Last day to apply for tuition refund
Spring break begins 5:00 p.m.
Classes resume 8:00 a.m.

Faculty Reports

May 3 Last day to withdraw with a grade of W. 4:00 p.m.

May 10 Last day of classes
May 13-17 Final Examinations
Semanter classes 5:

May 17 Semester closes 5:00 p.m.

The Academic Calendar may be subject to change or modification. A Summer Session is scheduled at Mountain View College during 1973. Information regarding the Summer Session will be available from the Admissions Office in the spring of 1973.

Academic Calendar, 1973-1974

SEPTEMBER 5 M Y W T F 5 2 3 4 5 6 7 8 9 10 11 21 31 4 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	OCTOBER 5 M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 22 22 42 52 627 28 29 30 31	NOVEMBER 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	DECEMBER 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
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Dallas County Community College District

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 colleges — Eastfield, El Centro, Mountain View and Richland — are 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 eager high school student who is ready to undertake college-level training in advance of his graduation from secondary school, and a place for the mature high school drop-out who has changed his mind about the necessity of education in today's complex, demanding society.

There is, simply stated, a place for everyone.

This approach to education brings together into a single college setting a multitude of personalities with divergent interests, ambitions and backgrounds, creating an educational community not unlike the "real" community in which people live, work and play and further enhancing the district's desire for total education. 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."

Therefore competent, intensive initial and continuing counseling and guidance is offered every student to discover his goals and special abilities and to update his educational program if those goals change during his college experience. This emphasis on counseling, rare for some institutions, is routine procedure at all district colleges.

The traditional "junior college" label, therefore, doesn't fit. True enough the district's colleges are two-year colleges which provide the freshman and sophomore years of a conventional four-year baccalaureate program. However, their function, philosophy and breadth make the label inadequate. Therefore, the name, Dallas County Community College District, has been adopted by the Board of Trustees to more accurately reflect the mission of its colleges, that of meeting the varied educational needs of the entire metropolitan family.

How do the district's colleges serve the educational requirements of such a complex family? The answer can be 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 long list of courses which are transferable to senior colleges and universities.
- For the student wishing to enter an occupation at a level above the lower level of a career 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 in cultural, civic and avocational subjects.

Dallas County voters created the district in May 1965 and approved a \$41.5 million bond issue to acquire sites and construct campus facilities.

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 with the start of the 1972-73 school year.

In addition to these four colleges, sites have been purchased for three future colleges, Brookhaven College, Cedar Valley College and North Lake College.

In September, 1972, voters of the district approved an \$85 million bond issue which will finance a ten-year expansion program continuing through the early 1980's. This program is expected to include construction of the three future colleges and expansion of all or part of the presently operating colleges.

These remarkable facilities and excellent faculties are expected to combine with the district's unique philosophy and the strong support of the people and create a network of outstanding educational communities within the bustling metropolitan county.

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 dissiminators 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 is reach.

League for Innovation

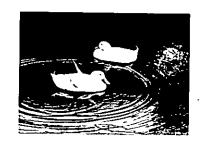
Mountain View College of the Dallas County Community College District is a member of the League for Innovation in the Community College. Fifteen outstanding community college districts throughout the nation compose the League membership. Innovative experimentation and the continuing development of the 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 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 program was created to meet the needs of students who work or have other obligations during the day. The evening 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 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 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 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 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.

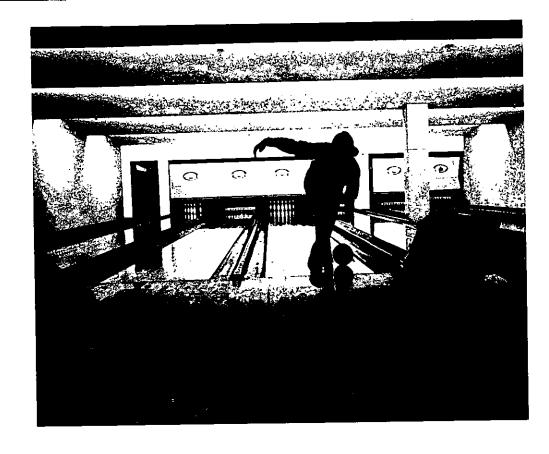
Instructors for community service programs are leading professional men and women, Mountain View College faculty members and other educators who bring to our community exciting learning opportunities.

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

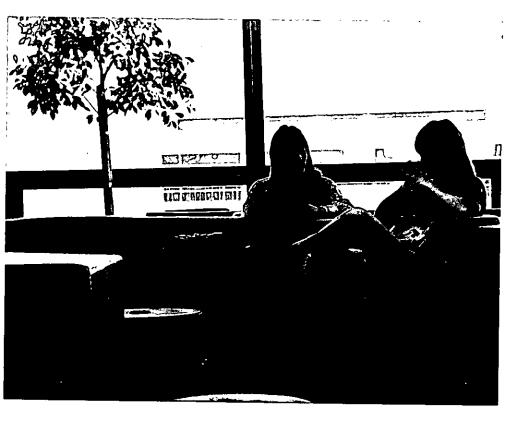
For additional information about Community Service programs, please contact the Mountain View Community Service office — Phone 746-4112.







STUDENT SERVICES



General Admission Policy

Applications will be accepted any time prior to registration. A student should complete the admission requirements at least three weeks before registration to receive adequate counseling and schedule planning. Late applicants may be limited in their selection of available classes in registration.

ADMISSION REQUIREMENTS

1. Beginning Freshmen

A student wishing to enroll in college for the first time will be considered for admission if he is:

- a. A graduate from an accredited high school.
- A graduate from an unaccredited high school who is 18 years of age or older.*
- 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. (In this case, a limited number of high school seniors may be concurrently enrolled for special study.)
- e. A student entering with composite ACT scores of 11 or below will be encouraged to enroll in the Developmental Studies Program. Individual decisions will, however, be made in conference with a counselor.

2. Transfer Students

a. College transfer applicants will be considered for admission based on their previous college record. Scholastic

standing of transfer applicants will be determined by the Mountain View College Office of Admissions based on standards established by the college.

b. Applications from students on scholastic or disciplinary suspension from another institution must be reviewed and approved for admission by the Committee on Admissions and Retention.

3. Former Students

Former students of El Centro, Eastfield, and Richland must submit an application for readmission to Mountain View College. Former Mountain View students who have not attended school for the preceding long semester should also file an application for re-admission.

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 campuses.

4. Non-Credit Students

Students seeking enrollment in non-credit courses should contact the Office of Community Service Programs.

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

Admission Procedures

It is the responsibility of each applicant to complete his admission file. Only those applicants who have fulfilled all admission requirements will be considered for admission. Applications will be processed until enrollment limits have been reached for each class offered.

Applicants residing in Dallas County will be given priority admission in any semester.

Students who are accepted for admission will have appointments scheduled with a counselor. The counselor will assist in planning a program of study.

Full-Time Applicants (12 semester units or more)

Students planning to take 12 semester hours or more must submit to the Office of Admissions the following items:

 Application for Admission (Social Security number required).

Official Transcript from last school attended (high school

or college).

2.

College transfer students who are seeking a certificate or associate degree are required to submit transcripts of all previous college work no later than the end of the first semester of enrollment at Mountain View College.

Results of the American College Testing Program (ACT).

The results of the ACT are used for counseling and placement. Students entering with ACT scores of 11 or below will generally be enrolled in the Developmental Studies program. Individual decisions will, however, be made in conference with a counselor.

College transfer applicants who have earned at least 6 units of college credit with a grade of "C" are exempt from submitting the results of the ACT. District colleges may require other standard testing scores for placement purposes.

Information about the ACT testing program may be obtained from a high school counselor or the office of the Director of Counseling. The ACT code for Mountain View College is 4089.

4. Health History Form.

All students are required to complete a health history form. This form should be returned by mail or in person directly to the Health Center. Written proof of inoculation is required for the following:

 A negative tuberculin skin test or chest x-ray within

the last 2 years.

b. Polio immunization if applicant is under nineteen years of age.

c. Diphtheria/tetanus immunization within ten years.

Part-Time Applicants (Less than 12 semester units)

Part-time students (less than 12 semester hours) must submit to the Office of Admissions the following items:

 Application for admission (Social Security number required).

Official Transcript from last school attended (high school

or college).

College transfer students who are seeking a certificate or associate degree are required to submit transcripts of all previous college work no later than the end of the first semester of enrollment at Mountain View College.

3. Health History Form.

All part-time students are required to complete a health history form. This form should be returned by mail or in per-

son directly to the Health Center. Written proof of inoculation is required for the following:

- a. A negative tuberculin skin test or chest x-ray within the last 2 years.
- b. Polio immunization if applicant is under nineteen years of age.
- c. Diphtheria/tetanus immunization within ten years.

Transfer of Credit

Transfer credit will be given for all college level 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 be required to earn additional grade points at district colleges to offset this deficiency. Students will not be graduated from Mountain View College until this deficiency has been cleared.

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

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).

Concurrent Enrollment

The colleges of 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 DCCCD Board of Trustees and are the same for all District colleges. Students may enroll in more than one college at the same time.

In case of concurrent enrollment at more than one district college, the basic tuition will be paid at college of residence which will be defined as the college in which student will take the majority of his credit hours.

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 Fee Schedule Fall, Spring Sessions, 1973-74

Semeste	r i	n-Distr	ict	Ou	t-of-Di	strict	Out	-of-St	ate*	Out-	of-Co	untry
Cr. Hrs.	Tuition	n 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	<i>7</i> 5	208	7	215	480	7	487	480	7	487
13	72	7	<i>7</i> 9	212	7	21 9	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	85	228	7	235	680	7	687	680	7	687
18	92	7	99	232	7、	239	<i>7</i> 20	7	<i>7</i> 27	720	7	<i>7</i> 27
19	96	7	103	236	7	243	260	7	267	760	7	767
20	100	7	107	240	7	247	800	7	807	800	7	807

General Fees

6-11 semester credit hours \$4.00

12-semester credit hours \$7.00

Dallas County Community College District Tuition and Fee Schedule Summer Sessions, 1974

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	<i>7</i> 2	192	390	390

Special Fees

Physical	education fee\$5.00	a semester
Bowling	Fee\$10.00	a semester

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 activity fee is not charged.

Credit by Examination

***Examination fee of \$15 per examination.

**Available only to music majors enrolled for 12 hours or more.

***This fee can change without prior notice.

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 until he officially drops the class. Also, a student's original enrollment represents a sizeable cost to the district whether or not he continues in that

class. Therefore, refunds will be made only under the following conditions:

- No 100% refund is granted unless college error is involved.
- 2. An 80% refund of tuition and fees if the class is officially dropped in accordance with dates published in the college calendar on page 4. An exception may be made for students inducted into the armed services if a copy of the induction notice is filed with the Petitions Committee. A refund of less than \$4 for tuition and fees will not be made.
- In a six-week summer session a student must officially drop a class by the end of the second day of that session to receive an 80% refund of tuition and fees.
- Request for refund must be submitted before the end of the semester or summer session for which this refund is requested.

^{*}A non-resident student is hereby defined to be a student less than twenty-one (21) years of age, living away from his family and whose family resides in another state or whose family has not resided in Texas for the twelve (12) months immediately preceding the date of registration; or a student twenty-one (21) years of age or older who resides out of the state or who has not been a resident of the state twelve (12) months immediately preceding the date of registration.

A student who feels that his refund request is due to an extenuating circumstance beyond the limits of the refund policy may submit a letter of explanation to the Refund Petitions Committee in the Office of the Dean of Student Services.

Refund checks normally require a minimum of one month to process.

Transcript of Credit from Mountain View College

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

Any student who has borrowed money under the Hinson-Hazle-wood College Student Loan Plan, formerly Texas Opportunity Plan Loan, at any institution in the State of Texas must obtain a release authorized by the Director of Financial Aids before any records are made available by the Registrar.

International Students

Mountain View College is authorized under Federal Law to enroll nonimmigrant alien students. International students seeking admission to the college must meet all requirements for admission and secure special permission from the President of the college.

Serviceman's Opportunity College

Mountain View College, along with the other campuses in the Dallas County Community College District and in cooperation with other community colleges in the United States, participates in the Serviceman's Opportunity College Program. This

program enables an institution to plan with a serviceman an educational experience regardless of his mobility pattern.

For further information regarding this program, contact the Admissions Office at Mountain View College.

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 counselors to meet students' needs. A partial review of additional materials and services available through the counseling center is listed below:

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

All students are assigned a counselor upon being admitted to the college. Those who desire services of

a counselor should contact their assigned counselor for an appointment. Students are encouraged to request a change in the assigned counselor if they desire.

Advisement

For students who have been admitted to the college, educational planning and advisement is provided. A staff of full-time counselors is available to the students of Mountain View College. Faculty members also serve as program advisors to aid students in defining their educational and vocational goals.

Financial Aid and Placement

The financial aid and placement program at Mountain View College is designed to function as a multipurpose financial assistance service for students. The 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 limited by their financial resources.

Students who anticipate the need for financial assistance to attend college should complete an application for financial aid prior to the beginning of the semester in which they plan to enroll. Application should be made early so that the Financial Aid officers may determine the amount of assistance required.

Requests for information should be directed to the Director of Financial Aid and Placement, Mountain View College, 4849 West Illinois Avenue, Dallas, Texas 75211.

Federal and State Programs

Veteran Benefits. Veterans of the Korean War and Cold War who are interested in details should contact the person in charge of Veteran's Benefits in the Admissions 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 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 - All veterans, honorably discharged and serving on active duty 180 days, excluding training, who have no remaining G. I. educational benefits and who are now residents of Texas and were residents of Texas at the time they entered the armed forces are eligible to have their tuition and fees waived. Contact the Office of Financial Aid and Placement for additional information and applications.

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:

Legal residence in Texas.

 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 no later than nine months from the day a 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

Educational Opportunity Grant. This grant is authorized under the Higher Educational Act of 1965 and is designed to help students with financial need. To be eligible a student must prove financial need, and make satisfactory progress toward

the completion of his educational goal.

Institutional Scholarships. This program is designed to aid the student who exhibits financial need.

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:

- Failure to maintain an acceptable academic record.
- Failure to meet the minimum course load requirements.
- Changes in the financial status of the student or his family.
- 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.

Terminal 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.

Student 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 program.
- 3. Off-campus placement.

Student Activities

Student Activities at Mountain View College are visualized as an integral part of the learning experience available at the college. Through direct contact with a professionally trained staff, the student will be 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 student association and student organizations, 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 college experience for each individual student.

Intercollegiate Athletics

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

- 1. Basketball.
- 2. Baseball.
- 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.

Health Services

Health services are provided for the students at Mountain View College in keeping with the philosophy that optimal health is essential if an individual is to achieve his full potential.

The Health Center offers various services for the student, with emphasis on health education and counseling programs, referral to physicians and agencies in the community, as well as health screening programs and emergency first aid.

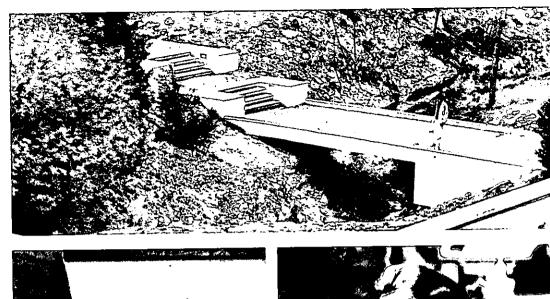
A physician is on call at all times and is available to see students by appointment if this is indicated.

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.

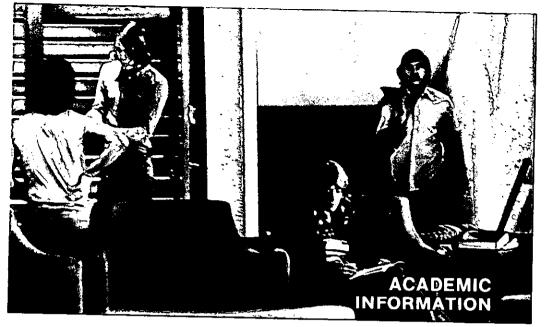
Standards of Conduct

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 Activities.

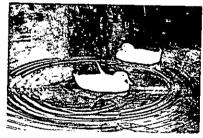












Definition of Acceptable Scholastic Performance

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.

perforscholastic Acceptable mance 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.

Grade Reports

Grade reports are issued to each student at the end of each semester within the week following the last scheduled final examination.

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.

Students will be allowed to earn as many credits through the creditby-examination procedure as their needs require and ability permits. The last fifteen semester hours graduation in required for degree or certificate program must be earned in residence 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 fulltime, will pay an examination fee of \$15.00 per examination. There is no refund of this fee. Though great effort has been made to interrelate the Mountain View College creditby-examination program with receiving four-year institutions, final acceptance of credit-by-examination for specific degree purposes may be determined by the receiving senior college or university.

For further information concerning graduation requirements, consult the Degree Requirement section

in this catalog.

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. The Honor Roll and Dean's Honor List will be published each semester.

Scholastic Probation and Scholastic Suspension

The policies on scholastic probation and scholastic suspension apply to full-tme students (12 semester

units [hours] or more) and to parttime students when they have attempted a total of 12 semester units (hours).

The following criteria will be used to determine academic standing:

 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 gradepoint average.

 Students who have been placed on scholastic probation may be removed fromprobation when they earn a 2.0 cumulative grade-point

average.

- Students on scholastic probation who achieve either a cumulative grade-point average of 1.5 or above or a previous semester grade-point average of 2.0 or above may continue on scholastic probation.
- Students on probation who do not meet the requirements of paragraph 3 will be placed on scholastic suspension.

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

Students previously enrolled in college who are placed on scholastic probation are expected to enroll in Human Development 106. 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 Students.

Waiving of Scholastic Suspension

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 grade 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 improvements 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 preregistration and should assume the responsibility of informing his counselor during the preregistration advisement session.

Library Obligations

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

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 of Students for excessive absences. Generally, first excessive absence reports are made when absences have reached 3 consecutive times or an accumulation of 6 times. 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 of Students when, in the opinion of the instructor, a student's continued absences warrant his suspension from class.

Students dropped for excessive absences prior to the last two weeks of the semester will receive a grade of "W" in the class from which they are dropped.

Dropping a Course or Withdrawal from College

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

 Obtain a drop or withdrawal form from his counselor and follow the procedure outlined by the counselor.

 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 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.

Academic Performance and Expectations

Students are expected to be honest in all course work. Dishonesty 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 to which 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.

Auditing a Course

Any person 18 years of age or older may, with the consent of the instructor, enroll as an auditor. 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 hours in credit courses and audit shall not exceed eighteen.

Recommended Academic Load

No student will be permitted to carry more than 18 semester hours of course work or more than 5 classes plus physical education without permission of the administration. 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 hours or more), he should not work more than 20 hours per week. If he must work more hours, his credit hour load in college should be reduced proportionately.

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

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

Scholastic Standards: Grades and Grade-Point Average

Grade	Interpretation	Grade-Point Value
	Excellent	4 points
В	Good	3 points
C	Average	2 points
D	Poor	1 point
Р	Progress	Not Com- puted
F	Failing	0 points
I	Incomplete	Not Com- puted
w 	Withdrawn	Not Com- puted

Grade points earned for each course are determined by multiplying the number of points for each grade by the number of credit units (hours) 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 (hours) attempted during the same period.

Incomplete grades may be given when an unforeseen emergency prevents a student from completing the work in a course. Incomplete grades must be converted to gradepoint-bearing grades within 90 days after the first day of classes in the subsequent regular semester. After 90 days, the "I" grade will be converted to a "W" grade if the student has failed to complete the course requirements.

DEGREE REQUIREMENTS ASSOCIATE IN ARTS AND SCIENCES DEGREE REQUIREMENTS

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

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

English 101-102, plus an additional 6 units (hours) of English 12 units

A minimum of 6 semester units (hours) of a laboratory science. (Music Majors are exempt from this requirement. Check listings under subject field.) 6 units

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 (hours) as a resident student in the district colleges or accrue 45 units (hours) in residence. The degree will be granted by the college in which the student took the last 15 units (hours) or where the majority of units (hours) were accrued. No more than one-fourth of the work required for any degree or certification 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 4-year institution are urged to complete their four semester

requirement in physical education during their freshman and sophomore years.

Students are urged to consult the catalog of the institutions to which they may transfer for their special requirements. These catalogs should be used by the student and his advisor as a basis for the program plan.

ASSOCIATE IN APPLIED ARTS AND SCIENCES DEGREE REQUIREMENTS

A minimum of 60 units (hours) exclusive of physical education activity courses and 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 (hour) total exceeds 60.

Procedure for Filing Degree Plan

- 1. Students should request a degree plan from the Registrar's Office upon completion of thirty semester hours. Transcripts of all previous college work must be on file at the time of the request for a degree plan.
- A student following a 1-year certificate program should request an official plan during his first semester.
- 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. Candidates for graduation in June will be required to attend the commencement program unless granted prior permission by the Dean of Students 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.
- For information concerning graduation fee, see page 18 under "Additional Fees." Information concerning graduation will be mailed to all candidates 30 days prior to commencement.

Candidates for a 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.







COURSES BY DIVISION





COURSES BY DIVISION

BUSINESS DIVISION	Credi
Accounting Technician	
Business 131 — Bookkeeping Business 132 — Bookkeeping	3 3
Business	
Business 105 — Introduction to Business Business 136 — Principles of Management Business 143 — Personal Finance Business 171 — Introduction to Supervision Business 201 — Principles of Accounting Business 202 — Principles of Accounting Business 206 — Principles of Marketing Business 230 — Salesmanship Business 233 — Advertising and Sales Promotion Business 234 — Business Law	3 3 3 3 3 3 3 3 3
Computer Science 175 — Introduction to Computing Science Computer Science 176 — FORTRAN Programming	3
Educational Office Occupations	2
Business 140 — Educational Processes Business 141 — Current Practical Problems	3
Mid-Management	
Business 150-151 — Management Training	4-4
Business 154 — Management Seminar — Role of Supervision	2
Business 155 — Management Seminar — Personnel Management	2 4-4
Business 250-251 — Management Training	4-4
Business 254 — Management Sentital — Organizational Development	2
Business 255 — Management Seminar — Business Strategy, The Decision Process and Problem Solving	2

Secretarial Careers	Credit
Business 160 — Machine Transcription	3
Business 161 — Office Machines	2
Business 162 — Secretarial Training	3
Business 163 — Beginning Shorthand	3
Business 164 — Intermediate Shorthand	3
Business 173 — Beginning Typing Business 174 — Intermediate Typing	2 2
Business 1/4 — Intermediate Typing	2
Business 231 — Business Correspondence Business 263 — Advanced Shorthand	3 3
Business 265 — Advanced Shorthand Business 264 — Shorthand Transcription	3
Business 273 — Advanced Typing	3
Business 275 — Advanced Typing	2
COMMUNICATIONS DIVISION	
Communications	
Communications 131 — Applied Composition and Speech	•
Communications 132 — Applied Composition and Speech	3 3
The second state of the second	·
English	
English 101 — Composition and Expository Reading	3
English 102 — Composition and Literature English 201 — British Literature English 202 — British Literature	3
English 201 — British Literature	3
English 202 — British Literature	3 3 3
English 203 — World Literature	3
English 204 — World Literature	3 .
English 205 — American Literature	3
English 206 — American Literature English 209 — Creative Writing	3
Finglish 215 — Studies in Literature	3
English 215 — Studies in Literature English 216 — Studies in Literature	3
and and stadies in Eliciature	3
Journalism	
Journalism 101 — Introduction to Mass Communication	3
Journalism 102 — News Gathering and Writing	3
Journalism 103 — News Gathering and Writing	3
Journalism 104, 105 — (Freshman)	_
202, 203 — (Sophomore)	
Special Assignment Newspaper (Lab)	1
Journalism 201 — Editorial and Feature Writing	3
Journalism 204 — News Editing and Copy Reading	3
Photography 110 — Introduction to Photography	
and Photo-Journalism	3

French	Credit
French IIII-III/ - Degillillig i Jenen	1-4 3-3
German	
German 101-102 — Beginning German	4-4
Spanish	
Snanish (1)1-102 — Beginning Spainsii	4-4 3-3
Speech	_
Speech 105 — Fundamentals of Public Speaking Speech 109 — Voice and Articulation	3 3
Speech 109 — Voice and Articulation Speech 110 — Reader's Theatre Workshop	1
Speech 201 — Forensic Workshop	1 3
Speech 205 — Discussion and Debate Speech 206 — Oral Interpretation	3
DEVELOPMENTAL STUDIES DIVISION	
Developmental Studies	
Developmental Communications 095 — Communicative Skills Developmental Communications 120 — Oral Communications	3 3
Developmental Math 090 — Pre-Algebra	3 3
Developmental Math 091 — Elementary Algebra Developmental Math 093 — Intermediate Algebra	3
Developmental Reading 090 — Basic Reading	3
Developmental Reading 091 — Basic Reading Developmental Reading 092 — Reading Lab	3
Developmental Writing 090 — Basic Writing Developmental Writing 091 — Basic Writing	3 3
Developmental Writing 091 — Basic Writing Developmental Writing 092 — Writing Lab	1
Human Development	
Human Development 105 — Basic Processes of Interpersonal Relationships	3
Human Development 106 — Personal and Social Growth Human Development 107 — Developing Leadership Behavior	3 3

Teacher Aides	Credit
Teacher Aides 129 — Communications Skills for Teacher Teacher Aides 131 — Teacher Aide Teachniques I Teacher Aides 133 — Teacher Aide Techniques II Teacher Aides 135 — Arts and Crafts for Teacher Aides Teacher Aides 231 — Seminar Teacher Aides 232 — Practicum Teacher Aides 235 — Seminar Teacher Aides 236 — Practicum	
Reading	
Reading 101 Advanced Reading	3
HUMANITIES DIVISION	
Art	
Art 103 — Introduction to Jewelry Art 104 — Art Appreciation Art 105 — Survey of Art History Art 106 — Survey of Art History Art 110 — Basic Design I Art 111 — Basic Design II Art 114-115 — Basic Drawing I, II Art 201 — Life Drawing I Art 202 — Life Drawing II Art 205 — Painting I Art 206 — Painting II Art 208 — Sculpture I Art 209 — Sculpture II Art 215 — Ceramics II Art 216 — Ceramics II	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Humanities	
Humanities 101 — Introduction to the Humanities	3
Music	
Music 095 — Applied Music Music 101 — Freshman Theory I Music 102 — Freshman Theory II Music 104 — Music Appreciation Music 105 — Italian Diction Music 106 — French Diction Music 107 — German Diction Music 110 — Literature	1 4 4 3 1 1
Music 110 — Literature Music 111 — Literature	3

Music (Continued)	Credit
Music 113 — Foundations in Music I Music 114 — Foundations in Music II Music 117 — Piano Class I Music 118 — Piano Class II Music 119 — Guitar Class I Music 120 — Guitar Class II Music 121-140 — Applied Music Music 150 — Chorus Music 151 — Voice Class I Music 152 — Voice Class II Music 155 — Vocal Ensemble Music 171 — Woodwind Ensemble Music 172 — Brass Ensemble Music 173 — Percussion Ensemble Music 174 — Keyboard Ensemble Music 175 — String Ensemble Music 176 — Symphonic Wind Ensemble Music 181 — Lab Band Music 199 — Recital Music 201 — Sophomore Theory I Music 202 — Sophomore Theory II Music 221-240 — Applied Music Music 251-270 — Applied Music	3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 4 4 2 3
Philosophy Philosophy 102 — Introduction to Philosophy Philosophy 105 — Logic Philosophy 203 — Ethics Philosophy 207 — History of Ancient Philosophy Philosophy 208 — History of Modern Philosophy	3 3 3 3
Theatre Theatre 100 — Rehearsal and Performance Theatre 101 — Introduction to the Theatre Theatre 102 — Contemporary Theatre Theatre 103 — Stagecraft I Theatre 104 — Stagecraft II Theatre 106 — Acting I Theatre 108 — Movement for the Stage Theatre 109 — Voice and Articulation Theatre 110 — History of the Theatre I Theatre 111 — History of the Theatre II Theatre 115 — Mime	1 3 3 3 3 3 3 3 3 3 3 2

'	I SICAL E	DUCATIO	M DIAI2I	ON	Credit
	Physical	Education	100 —	Lifetime Sports Activities I	1
	Physical	Education	101 —	Fundamentals of Health	3
	Physical	Education	104M —	Touch Football/Soccer	1
	Physical	Education	110 —	Community Recreation	3
	Physical	Education	111 —	Beginning Wrestling	1
	Physical	Education	113	Handball and Racketball	1
	Physical	Education	115 —	Physical Performance Activities	1
	Physical	Education	120 —	Bowling	1
	Physical	Education	121 —	Folk Dance	1
	Physical	Education	122 —	Tumbling and Gymnastics	1
	Physical	Education	124 —	Social Dance	1
	Physical	Education	125W —	Figure Training and Conditioning	
				Exercise	1
	Physical	Education	127M —	Volleyball and Basketball	
	D)	·		for Men	1
	Physical	Education	127W —	Volleyball and Basketball	
				for Women	1
	Physical	Education	129 —	Modern Dance	1
	Physical	Education	131M —	Weight Training and Conditioning	
				tor Men	1
	Physical	Education	144 —	Introduction to Physical Education	
	Physical	Education	147 —	Sports Officiating I	3
	Physical	Education	148 —	Sports Officiating II	3
	Physical	Education	200 —	Lifetime Sports Activities II	1
	Physical	Education	210 —	Sports Appreciation for the	
	Dh!	F-1 . 41	040	Spectator	3
	Physical	Education	218 —	Intermediate and Advanced Golf	1
	Physical	Education	219	Intermediate and Advanced Tennis	1
	Physical	Education	222 —	Intermediate and Advanced	
	Dhartast	ru	006	Gymnastics	1
	rnysical	Education	236 —	The Coaching of Football and	
	Dlamata I	.		Basketball	3
	rnysical	Education	257	Standard and Advanced First Aid	3

SCIENCE AND MATHEMATICS DIVISION	Credit
Aviation Administration	
Aviation Administration 131 — Introduction to Aviation Aviation Administration 133 — Air Transportation Aviation Administration 134 — Aviation Law Aviation Administration 231 — Air Cargo Aviation Administration 233 — Transportation and Traffic Management Aviation Administration 235 — Airline Management Aviation Administration 236 — Aviation Marketing Aviation Administration 237 — Transportation Regulations and Revenue Aviation Administration 239 — Airport Management	3 3 3 3 3 3 3
Avionics Technology 130 — Introduction to Aircraft Electronic Systems Avionics Technology 131 — Aircraft Communications Systems Avionics Technology 230 — Aircraft Navigation Systems Avionics Technology 231 — Aircraft Electrical and Instrumentation Systems Avionics Technology 232 — Aircraft Radar Systems Avionics Technology 233 — Aircraft Systems, Installation, Wiring, and Modification Avionics Technology 234 — Aircraft Electronic Systems Checkout and Trouble- Shooting Procedures	2 4 4 4 3
Blueprint Reading	
Blueprint Reading 177 — Blueprint Reading Blueprint Reading 178 — Blueprint Reading	2 2
Drafting	
Drafting 133 — Intermediate Drafting Drafting 135 — Reproduction Processes Drafting 136 — Geological and Land Drafting Drafting 182 — Technician Drafting Drafting 183 — Basic Drafting Drafting 185 — Architectural Drafting Drafting 230 — Structural Drafting Drafting 231 — Electronic Drafting Drafting 232 — Technical Illustration Drafting 233 — Machine Design Drafting 234 — Advanced Technical Illustration Drafting 235 — Building Equipment (Mechnical and	3 2 3 2 4 4 3 3 3 4 4

Electronics Technology	Credit
Electronics Technology 135 — D.CA.C. Theory and	
Circuit Analysis	6
Electronics Technology 190 — D.C. Circuits and Electrical	_
Measurements Flootronics Tochnology 191	4
Flootronics Technology 191 — A.C. Circuits	4
Flortronics Technology 193 — Active Devices	4
Electronics Technology 191 — A.C. Circuits Electronics Technology 193 — Active Devices Electronics Technology 194 — Instrumentation Electronics Technology 231 — Special Circuits with	3
Special Circuits with	_
Communications Applications	4
Electronics Technology 232 — Analysis of Electronics Logic	_
and Switching Circuits	4
Electronics Technology 233 — Industrial and Microwave	
Electronic Technology	4
Electronics Technology 234 — Electronic Circuits and Systems	3
Engineering	
Engineering 101 — Engineering Analysis	2
Engineering 101 — Engineering Analysis Engineering 105 — Engineering Graphics	3
Engineering 106 — Descriptive Geometry	3
Engineering 107 — Engineering Mechanics I	3 3 2 3 3 3
Engineering 186 — Manufacturing Processes	2
Engineering 188 — Statics	3
Engineering 189 — Characteristics and Strengths of Materials	3
Engineering 201 — Engineering Mechanics II	3
Engineering 202 — Engineering Mechanics of Materials	3
Engineering 189 — Characteristics and Strengths of Materials Engineering 201 — Engineering Mechanics II Engineering 202 — Engineering Mechanics of Materials Engineering 203 — Engineering Production Techniques	3
Horology	
Horology 131 — Introduction to Horology: Clock Theory and Repair	5
Horology 132 — Introduction to Horology: Modern	J
Clock Theory and Repair	5
Horology 133 — Watch Cleaning and Assembly	6
Horology 134 — Watch Part Replacement	
Horology 135 — Advanced Watchmaking I	6 5 5
Horology 135 — Advanced Watchmaking I Horology 136 — Advanced Watchmaking II	5
Horology 137 — Customer and Rusiness Polations	ž

Machine Shop	Credit
Machine Shop 133 — Basic Lathe	5
Machine Shop 133 — Basic Milling Machine	5
Machine Shop 135 — Intermediate Lathe	5
Machine Shop 135 — Intermediate Lattice Machine Shop 136 — Intermediate Milling Machine	5
Machine Shop 130 — Intermediate Williams Machine Shop 233 — Advanced Lathe	5
Machine Shop 233 — Advanced Lattie Machine Shop 234 — Advanced Milling Machine	5
Machine Shop 235 Applied Lathe	5
Machine Shop 235 — Applied Lathe Machine Shop 236 — Applied Milling Machine	5
Machine Shop 230 — Applied Milling Machine	J
Mathematics	
Mathematics 104 — Elementary Functions and	
Coordinate Geometry I	5
Mathematics 105 — Elementary Functions and	
Coordinate Geometry II	5
Mathematics 106 — Elementary Functions and	
Coordinate Geometry	5
Mathematics 111 — Mathematics for Business and	
Economics 1	3
Mathematics 112 — Mathematics for Business and	
Education II	3
Mathematics 115 — College Mathematics I	3
Mathematics 116 — College Mathematics II	3
Mathematics 126 — Introductory Calculus	5
Mathematics 116 — College Mathematics II Mathematics 126 — Introductory Calculus Mathematics 130 — Business Mathematics	5 3 3
Mathematics 139 — Applied Mathematics	3
Mathematics 195 — Technical Mathematics	3
Mathematics 196 — Technical Mathematics	3
Mathematics 202 — Introductory Statistics	3
Mathematics 221 — Linear Algebra Mathematics 227 — Mathematical Analysis 1	3
Mathematics 227 — Mathematical Analysis 1	4 3
Mathematics 228 — Mathematical Analysis II	3
Pilot Technology	Credit
Pilot Technology 130 — Ground School Private	2
Pilot Technology 132 — Flight Private Pilot	1
Pilot Technology 133 — Flight Basic 1	1
Pilot Technology 135 — Flight Basic II Pilot Technology 136 — Aero Engines and Systems	1
Pilot Technology 136 — Aero Engines and Systems	3
Pilot Technology 231 — Flight Commercial I	2
Pilot Technology 232 — Ground School Commercial	3
Pilot Technology 233 — Flight Commercial II	3
Pilot Technology 234 — Flight Commercial III	3
Pilot Technology 236 — Aero Physics Pilot Technology 237 — Meteorology	3
Pilot Technology 237 — Meteorology	3 2 2
Pilot Technology 240 — Ground School Instrument	2
Pilot Technology 241 — Flight Instrument	2
Pilot Technology 242 — Ground School Flight Instructor	2
Pilot Technology 243 — Flight Instructor	2

Plastics Technology	Credit
Plastics Technology 131 — Introduction to Plastics	4
Plastics Technology 133 — Extrusion Molding	4
Plastics Technology 133 — Extrusion Molding Plastics Technology 134 — Thermo Forming	4
Plastics Technology 135 — Properties of Materials	4
Plastics Technology 135 — Injection Molding	4
Plastics Technology 138 — Plastic Finishing	4
Plastics Technology 231 — Thermo-Plastic Process	•
Equipment Maintenance	4
Plastics Technology 232 — Plastic Fabrication Manufacture Plastics Technology 233 — Testing and Quality Control	4
Plastics Technology 233 — Testing and Quality Control	4
Plastics Technology 234 — Production Planning and	
Process Control	3
Plastics Technology 235 — Fundamentals of Electricity	4
Plastics Technology 236 — Hydraulics and Pneumatic	3
SCIENCE	
Biology	
Biology 101-102 — General Biology	4-4
Biology 115 — Biological Science	4
Biology 116 — Biological Science	4
Biology 120-121 — Introduction to Human Anatomy	
and Physiology	4-4
Biology 203 — Intermediate Botany	4
Biology 214 — Field Biology	6
Biology 215 — Human Anatomy and Physiology Biology 216 — General Microbiology	4 4
Biology 221-222 — Anatomy and Physiology	4-4
Biology 230 — Mammalian Physiology	4
The state of the s	•
Chemistry	
Chemistry 101 — General Chemistry	4
Chemistry 102 — General Chemistry Chemistry 115 — General Chemistry	4
Chemistry 115 — General Chemistry	4
Chemistry 116 — General Chemistry	4
Chemistry 201 — Organic Chemistry	4
Chemistry 202 — Organic Chemistry Chemistry 203 — Quantitative Analysis	4
Chemistry 203 — Quantitative Analysis	4
Geography	
Geography 101 — Geography (Physical)	3
Geography 102 — World Geography (Economic)	3

Geology	Credit
Geology 101 — General Geology (Physical) Geology 102 — General Geology (Historical)	4
Physical Science	
Physical Science 115 — Physical Science Physical Science 116 — Physical Science	3 3
Physics	
Physics 111-112 — General Physics Physics 131-132 — Applied Physics Physics 201 — General Physics Physics 202 — General Physics Physics 203 — Modern Physics	4-4 4-4 4 4
SOCIAL AND BEHAVIORAL SCIENCE DIVISION	
Anthropology	
Anthropology 100 — Introduction to Anthropology Anthropology 101 — Cultural Anthropology	3 3
Economics	
Economics 201 — Principles of Economics Economics 202 — Principles of Economics	3 3
Government	
Government 201 — American Government Government 202 — American Government	3 3
History	
History 101 — History of the United States History 102 — History of the United States History 105 — Western Civilization History 106 — Western Civilization History 120 — Afro-American History	3 3 3 3
Human Services	
Human Services 131 — Orientation to Human Services Human Services 134 — Human Services Seminar Human Services 231 — Procedures in Social Work Human Services 233 — Counseling for the Paraprofessional Human Services 235 — Introduction to Mental Health	3 3 3 3

Human Services (Continued)	Credit
Human Services 240-242 — Work Experience in Human Se (Field Work)	rvices 2-2
Human Services 241-243 — Work Experience Seminar	2-2
Psychology	
Psychology 105 — Introduction to Psychology Psychology 131 — Human Relations Psychology 201 — Human Growth and Development Psychology 202 — Applied Psychology Psychology 205 — Psychology of Personality Psychology 209 — General Psychology	3 3 3 3 3
Religion	
Religion 101 — Religion in American Culture Religion 102 — Contemporary Religious Problems Religion 201 — Major World Religions	3 3 3
Social Science	
Social Science 131-132 — American Civilization	3-3
Sociology	
Sociology 101 — An Introduction to Sociology Sociology 102 — Social Problems Sociology 203 — Marriage and Family Sociology 204 — American Minorities	3 3 3

LEARNING RESOURCES DIVISION

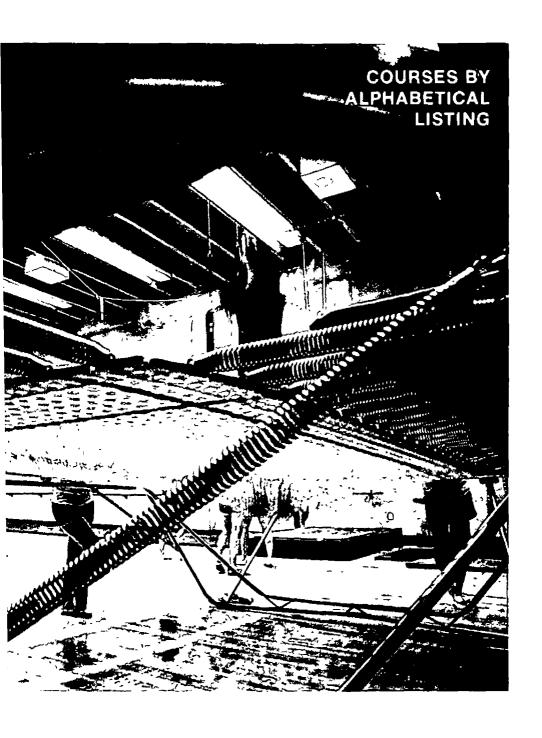
A wide range of instructional materials, equipment, and services are provided through the Learning Resources Center. The Center is composed of Media Services and the Library. Media Services, Located in W137, selects and prepares various types of audio-visual materials and equipment for classroom use. Consultants assist users in choosing appropriate materials from available films, filmstrips, slides, audio and visual tapes, and produce or borrow materials to meet special needs.

The Library, located in W181, houses print and non-print materials for reference, research, and recreation. Materials include extensive collections of newspapers, pamphlets, art reproductions, audio tapes, microfilm, and recordings of popular music, spoken arts, and classical selections. Services include copy machines for printed matter and microfilm, typewriters, microfilm readers, study carrels, a seminar room, and study lounges. A librarian is on duty to assist users in selection of materials.









Anthropology 100 Introduction to Anthropology (3)

3 hrs. 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) 3 hrs. 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. Consent of instructor recommended.

Art 103 Introduction to Jewelry (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisites: Art 110, Art 111, or permission of instrucor. The basic techniques of fabrication and casting of metals, with an emphasis on original design.

Art 104 Art Appreciation (3) 3 hrs. Lec.

Films, lectures, slides, and discussion 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) 3 hrs. 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) 3 hrs. 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

Basic Design I (3)

2 hrs. Lec. 4 hrs. Lab.

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

Art 111

Basic Design II (3)

2 hrs. Lec. 4 hrs. 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.

Art 114-115

Basic Drawing I, II (3) (3) 2 hrs. Lec. 4 hrs. Lab.

Prerequisite: Art 114 to Art 115. A study of drawing, both as a major medium and as a flexible research tool with emphasis on structure and the illusions of space, volume, and movement. Required of all art majors. Open to others who are interested.

Art 201 Life Drawing 1 (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisites: Art 110, 114, sophomore standing and/or permission of the Humanities Chairman. Analytic and expressive drawing of the human figure, stressing study of movement and volume.

Art 202 Life Drawing II (3)

3 hrs. Lec. 4 hrs. Lab.

Prerequisites: Art 110, 114, 201, sophomore standing and/or permission of Humanities Chairman. Analytic and expressive drawing of the human figure, stressing study of movement and youme.

Art 205 Painting 1 (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisites: Art 110, 114, 205 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 imaginations.

Art 206 Painting II (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisites: Art 110, 111, 205 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 208 Sculpture I (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisites: Art 110, 111, 114 or permission of the instructor. A studio course designed as a means of original expression in three-dimensional media.

Art 209

Sculpture II (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisites: Art 110, 111, 114, 208 or permission of the instructor. A studio course designed as a means of original expression in three-dimensional media.

Art 215

Ceramics I (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: Art 111 or permission of instructor. Introductory work and basic techniques. Emphasis upon the development of construction methods, surface treatment, and glaze application.

Art 216 Ceramics II (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisites: Art 111, Ceramics 1 or permission of instructor. A study of glaze technology and advanced problems in the creation of sculptural and utilitarian ceramic ware.

Aviation Administration 131 Introduction to Aviation (3) 3 hrs. 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 3 hrs. Lec. Air Transportation (3)

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) 3 hrs. 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 231 3 hrs. Lec. Air Cargo (3)

Prerequisite: Aviation Administration Freshman Core. Presents 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 air cargo, problems, automation, trends, and future development.

Aviation Administration 233 Transportation and Traffic 3 hrs. Lec. Management (3)

Prerequisite: Aviation Administration

Freshman Core, credit or concurrent Enrollment in Bus 136. A study of presentday transportation modes and how these may interface effectively to provide efficient transport of passengers and cargo from point of origin to destination. Emphasis on managerial definition and solution of problems involved at transition/transfer terminals where compatibly scheduled traffic movement is crucial to the journey continuation and/or ending.

Aviation Administration 235 3 hrs. Lec. Airline Management (3)

Prerequisite: 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) 3 hrs. Lec.

Prerequisite: 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) 3 hrs. Lec.

Prerequisite: 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) 3 hrs. Lec.

Prerequisite: 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 to Aircraft Electronic Systems (2) 2 hrs. 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)

3 hrs. Lec. 3 hrs. 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.

Avionics Technology 230 Aircraft Navigation Systems (4)

3 hrs. Lec. 3 hrs. 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.

Avionics Technology 231 Aircraft Electrical and Instrumentation Sytems (4) 3 hrs. Lec.

trumentation Sytems (4) 3 hrs. Lec. 3 hrs. 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.

Avionics Technology 232 Aircraft Radar Systems (4) 3 hrs. Lec. 3 hrs. 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.

Avionics Technology 233 Aircraft Systems Installation, Wiring and Modification (3) 1 hr. Lec. 5 hrs. 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.

Avionics Technology 234 Aircraft Electronic Systems Checkout and Trouble-Shooting Procedures (4) 2 hrs. Lec. 5 hrs. Lab.

Prerequisites: AV 130 and a passing grade and/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.

Biology 101-102 General Biology (4) (4) 3 hrs. Lec. 3 hrs. Lab.

Prerequisite to all higher level biology courses and must be taken in sequence. Recommended for science majors. A two-semester course surveying in depth the principal concepts of biology, including a study of the cell, levels of organization, an introduction to metabolism, and evolutionary relationships.

Biology 115 Biological Science (4)

3 hrs. Lec. 3 hrs. 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.

Biology 116

Biological Science (4)

3 hrs. Lec. 3 hrs. 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.

Biology 120-121 Introduction to Human Anatony and Physiology (4) (4) 3 hrs. Lec. 2 hrs. 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 Paramedical disciplines. Other students interested in the study of the functioning of the human body should consult a counselor. Not to be taken by science majors.

Biology 203 Intermediate Botany (4) 3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Bio. 102. A survey of the major plant group with emphasis placed on morphology, physiology, classification, life cycles, evolutionary relationships to each other and the economic importance to man.

Biology 214 Field Biology (6)

3 hrs. Lec. 6 hrs. Lab. or field work

Prerequisite: Eight hours of biological science. Survey of local plant and animal life in relationship to their environment. Aquatic and terrestrial communities will be studied with reference to basic ecological principles and techniques. Emphasis will be placed upon classification, identification, and collecting specimens in the field.

Biology 215 Human Anatomy and Physiology (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Bio. 102 or equivalent preparation. An intermediate level course comparing the structure and function of organ systems in various vertebrates with emphasis upon the human body. Attention will be given to the histology, embryology, and genetics of the animals studied.

Biology 216 General Microbiology (4) 3 hrs. Lec. 4 hrs. Lab.

Prerequisite: Bio 102. A study of microbes with emphasis on classification, growth, nutrition, metabolism, reproduction, and the genetics of microorganisms.

Biology 221-222 Anatomy and Physiology (4) (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Bio 102. Structure and function as related to the human skeletal, muscular, nervous, cardiovascular, digestive, respiratory, reproductive, and endocrine systems. Emphasis placed on the interrelationships between these systems. Basic principles of disease transmission and detection.

Biology 230

Mammalian Physiology (4) 3 hrs. Lec. 3 hrs. 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 interrelationships that exist. Utilization of instrumentation to measure various physiological parameters will be employed.

Blueprint Reading 177 Blueprint Reading (2)

1 hr. Lec. 3 hr. 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)

1 hr. Lec. 3 hr. 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.

Business 105 Introduction to Business (3) 3 hrs. Lec.

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

Business 131 Bookkeeping (3)

3 hrs. Lec.

The fundamental principles of doubleentry 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)

3 hrs. 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)

3 hrs. 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 140

Educational Processes (3) 3 hrs. Lec.

An overview of the educational processes (public and private) from preschool through college. Emphasis is placed on the contribution and influence made by education on our culture and our economy.

Business 141 Current Practical Problems (3)

3 hrs. Lec.

Orientation to school organization, procedures, and staff utilization via the problem solving approach.

Business 143

Personal Finance (3) 3 hrs. Lec.

A study of everyday 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) 20 hrs. 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.

Business 151 Management Training (4) 20 hrs. Lab.

Prerequisite: Concurrent enrollment in approved Mid-Management Program. A continuation of Business 150.

Business 154 Management Seminar—Role of Supervision (2) 2 hrs. 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 development of management, goal setting and planning, leadership, communication, and motivation as applied to student's work experiences.

Business 155 Management Seminar— Personnel Management (2)

2 hrs. Lec.

Prerequisite: Bus. 150, Bus. 154, and concurrent enrollment in Business 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) 3 hrs. Lec.

Prerequisite: Satisfactory completion of Bus. 173 or one year of typing in high school. Intensive course in transcribing from recording machines using predictated 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)

1 hr. Lec. 2 hrs. Lab.

Training for familiarization and competence on those machines common to most business offices, such as adding machines and calculators.

Business 162 Secretarial Training (3) 3 hrs. Lec.

Prerequisite: Satisfactory completion of or concurrent enrollment 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) 2 hrs. Lec. 3 hrs. Lab.

Prerequisite: Satisfactory completion of 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) 2 hrs. Lec. 3 hrs. Lab.

Prerequisite: Satisfactory completion of Bus. 163 or one year of shorthand in high school; satisfactory completion of Business 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)

3 hrs. Lec.

Prerequisite: Enrollment in Technical/Occupational 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)

1 hr. Lec. 2 hrs. 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) 1 hr. Lec. 2 hrs. Lab.

Prerequisite: Satisfactory completion of Bus 173 or one year of typing in high school. Further development of techniques. Emphasis will be placed on increasing speed and accuracy with practice in typing business forms, correspondence, and manuscripts.

Business 201 Principles of Accounting (3)

3 hrs. 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) 3 hrs. 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) 3 hrs. 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) 3 hrs. 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) 3 hrs. Lec.

Prerequisite: Satisfactory completion of Bus 173 or one year of typing in high school; satisfactory completion of 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) 3 hrs. 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)

3 hrs. 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) 20 hrs. Lab.

Prerequisite: Bus 150-151; concurrent enrollment in Business 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.

Business 251

Management Training (4) 20 hrs. Lab.

Prerequisite: Bus 150-151. Concurrent enrollment in Business 255. A continuation of Business 250.

Business 254 Management Seminar — Organizational Development (2)

2 hrs. Lec.

Prerequisite: Bus 151, Bus 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) 2 hrs. 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. Special emphasis will be placed upon the application of the student's course knowledge and work experiences.

Business 263 Advanced Shorthand (3) 2 hrs. Lec. 3 hrs. Lab.

Prerequisite: Satisfactory completion of Bus 164 or two years of shorthand in high school; satisfactory completion of Bus 174 or two years of typing in high school. Further development of shorthand skills to attain proficiency required for stenographic work. Emphasis on speedbuilding dictation, timed typewritten transcription of shorthand notes for mailable letters.

Business 264 Shorthand Transcription (3) 2 hrs. Lec. 3 hrs. Lab.

Prerequisite: Satisfactory completion of Bus 263; satisfactory completion of Bus 273. Emphasis upon specialized dictation, mailable transcriptions, and vocabulary building. Development of high-level skill in production work meeting office standards.

Business 273 Advanced Typing (2) 1 hr. Lec. 2 hrs. Lab.

Prerequisite: Satisfactory completion of Bus 174 or two years of typing in high school. Timed production of all types of business material is emphasized. A continuation of skill development and a reveiw of typing techniques are also stressed. This course will demand accuracy at advanced speeds.

Chemistry 101 General Chemistry (4)

3 hrs. Lec. 3 hrs. 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.

Chemistry 102 General Chemistry (4)

3 hrs. Lec. 3 hrs. 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.

Chemisty 115 General Chemistry (4)

3 hrs. Lec. 3 hrs. 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, solutions, electrochemistry, and nuclear chemistry. The descriptive chemistry of some common elements and inorganic compounds is included.

Chemisty 116 General Chemistry (4)

3 hrs. Lec. 3 hrs. 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, and chemistry of heredity, disease and therapy, and plant biochemistry.

Chemisty 201 Organic Chemistry (4)

3 hrs. Lec. 4 hrs. 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.

Chemistry 202 Organic Chemistry (4)

3 hrs. Lec. 4 hrs. 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, poly-functional compounds including amino acids, proteins, carbohydrates, sugars, heterocyclic and related compounds. Instrumental techniques will be used to identify organic compounds.

Chemistry 203 Quantitative Analysis (4) 2 hrs. Lec. 6 hrs. Lab.

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

Communications 131 Applied Composition and Speech (3)

3 hrs. 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)

3 hrs. Lec.

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

Computer Science 175 Introduction to Computing Science (3) 3 hrs. 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 careers.

Computer Science 176 FORTRAN Programming (3) 2 hrs. Lec. 2 hrs. Lab.

Prerequisite: Mth 104. Designed to provide programming skills for those students who need to use the computer as a tool in solution of problems in their curriculum. FORTRAN is especially suitable for mathematical formulas and will provide valuable assistance for students in the math and science disciplines.

Developmental Communications 095 Communicative Skills (3) 3 hrs. 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 Oral Communications (3) 3 hrs. Lec.

Designed for students with significant problems in language development. Small group sessions are supplemented with individual participation in listening, comprehension, and oral expression of language using programmed materials in a language lab. Materials have been developed to enable the individual student to acquire increasing skill in the use of sounds, structure, and meanings of standard English. Emphasis is also placed on understanding the importance of the processes of oral communication in social and vocational situations.

Developmental Math 090

Pre-Algebra (3)

3 hrs. Lec.

Mth. 090 is designed to develop an understanding of fundamental operations using whole numbers, fractions, decimals, and percentages 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 Math 091 Elementary Algebra (3) 3 hrs. Lec.

Prerequisite: DM 090 or equivalent. Mth 091 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 104 as well as a foundation for technical math.

Developmental Math 093 Intermediate Algebra (3) 3 hrs. Lec.

Prerequisite: DM 091, or one year of high school algebra. 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 and linear equations, coordinate systems, and graphing.

Developmental Reading 090 Basic Reading (3) 3 hrs. Lec. and Lab.

DR 090 is concerned with the improvement of comprehension skills, vocabulary building, and study skills. The course is designed for those students who wish to strengthen the basic reading skills necessary for success in vocational, terminal, and transfer educational programs. Developmental Reading is offered in a laboratory setting employing individualized instruction methods.

Developmental Reading 091 Basic Reading (3) 3 hrs. Lec. and Lab.

DR 091 is designed to increase proficiency in reading comprehension and rate, word recognition and vocabulary development, and study skills and reading in the content areas. It also includes reading experiences which have been developed to broaden the general reading background of the student. It is offered in a laboratory setting.

Developmental Reading 092 Reading Lab (1) 3 hrs. 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 Basic Writing (3) 3 hrs. Lec.

DW 090 emphasizes the diagnosis and correction of deficiencies in basic writing skills. Mechanics of writing will include spelling, comprehension techniques, vocabulary improvement, principles of sentence and paragraph structure, and various types of paragraph development. The course provides experience in finding and organizing ideas and materials for written compositions with an introduction to essay writing. It is held in a laboratory setting utilizing individualized instruction techniques.

Developmental Writing 091 Basic Writing (3) 3 hrs. Lec.

Prerequisite: DW 090 or equivalent. Developmental Writing 091 includes a review of paragraph and essay development. It encompasses research techniques and writing, reports and analysis. Individual instruction in basic skills is included.

Developmental Writing 092 Writing Lab (1) 3 hrs. Lab.

DW Lab 092 is a workshop to facilitate writing success for course work and other individual interests. Students are given instruction and supervision in written assignments, research papers, rewriting and editing, organization, vocabulary development, and correction of

errors in grammar, mechanics and spelling. It develops the ability to write effectively, spontaneously, and creatively from individual opinions and reactions.

Drafting 133 Intermediate Drafting (3) 2 hrs. Lec. 4 hrs. Lab.

Prerequisite: DFT 183. The instructional units provide additional understanding of drafting problems, places emphasis on the design function, and introduces several specialized drafting areas. This course includes the detailing and assembling of machine parts, gears, and cams, jigs 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.

Drafting 135 Reproduction Processes (2) 1 hr. Lec. 3 hrs. 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, engraving, 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.

Drafting 136 Geological and Land Drafting (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisites: DFT 133 and MTH 196. Involves study of symbols, abbreviations, classification, 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)

1 hr. Lec. 3 hrs. 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)

2 hrs. Lec. 6 hrs. Lab.

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

Drafting 185 Architectural Drafting (4) 2 hrs. Lec. 6 hrs. Lab.

Prerequisite: Dft 183. 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) 2 hrs. Lec. 4 hrs. Lab.

Prerequisites: DFT 183 and MTH 132. 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)

2 hrs. Lec. 4 hrs. 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 wiring boards, integrated circuits, component packaging, chassis design, and current practices.

Drafting 232 Technical Illustration (3) 2 hrs. Lec. 4 hrs. 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 or sensitive materials, and layout of electronics schematics are included in the course.

Drafting 233 Machine Design (4)

2 hrs. Lec. 6 hrs. Lab.

Prerequisites: PHY 131 and credit or concurrent registration in Egr 241. 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)

2 hrs. Lec. 6 hrs. 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.

Drafting 235 Building Equipment (Mechanical and Electrical (3) 2 hrs. Lec. 4 hrs. Lab.

Prerequisite: DFT 183. 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.

Economics 201

Principles of Economics (3) 3 hrs. 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 (3) 3 hrs. Lec.

Prerequisite: Eco 201 or permission of 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 5 hrs. Lec.

Circuit Analysis (6) 3 hrs. Lab.

Prerequisite: 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.

Electronics Technology 190 D.C. Circuits and and Electrical Measurements (4) 3 hrs. Lec. 3 hrs. 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.

Electronics Technology 191

A.C. Circuits (4)

3 hrs. Lec. 3 hrs. 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)

3 hrs. Lec. 3 hrs. 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 nonlinear characteristics, and operation action as applied to amplifiers, rectifiers, and electronic switching devices.

Electronics Technology 194

Instrumentation (3)

2 hrs. Lec. 3 hrs. Lab.

Prerequisite: ET 190. A study of electrical measurement and instrumentation devices and their application to practical situations. Devices and instruments covered include A.C. and D.C. measurement meters, impedance bridges, oscilloscopes, signal generators, signal tracers, and tube and transistor testers. A study of audio frequency and radio frequency test methods and equipment is included.

Electronics Technology 231 Special Circuits with Communications Applications (4)

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3 hrs. Lec. 3 hrs. 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.

Electronics Technology 232 Analysis of Electronics Logic and Switching Circuits (4)

3 hrs. Lec. 3 hrs. 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.

Electronics Technology 233 Industrial and Microwave Electronic Technology (4) 3 hrs. Lec. 3 hrs. 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.

Electronics Technology 234 Electronic (3) Circuits and Systems 6 hrs. Lab.

Prerequisite: Must have completed all Electronic courses up to and including ET 231 and may take 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.

Engineering 101 Engineering Analysis (2) 2 hrs. Lec.

Prerequisite: DM 093 or equivalent. The past, present, and future role of the engineer in society, branches and specialties in engineering, introduction to engineering analysis affording practice in analyzing and solving engineering problems; computational methods and devices, to include slide rule theory and techniques; an introduction to numerical methods and computer programming.

Engineering 105 Engineering Graphics (3) 2 hrs. Lec. 4 hrs. Lab.

Provides the basic graphic fundamentals necessary for engineering communications and engineering design. Teaches standard engineering graphical techniques, auxiliaries, sections, graphical analysis, pictorial and working drawings in a framework which introduces the student to rational processes of creative engineering.

Engineering 106 Descriptive Geometry (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: EGR 105 and DFT 183. Provides training in the visualization of three-dimensional structures, and in accurately representing these structures in drawings by analyzing the 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.

Engineering 107 Engineering Mechanics I (3) 3 hrs. Lec.

Prerequisite: Credit or concurrent registration in MTH 126. A study of the statics of particles and rigid bodies with vector mathematics in three-dimensional space. Principles of the equilibrium of forces, force systems, resultants, free-body diagrams, friction, centroids and moments of inertia, virtual work, and potential energy are used. Distributed forces, centers of gravity, analysis of structures, beams, and cables are treated.

Engineering 186 Manufacturing Processes (2) 1 hr. Lec. 2 hrs. 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.

Engineering 188 Statics (3)

3 hrs. 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) 3 hrs. Lec.

Prerequisites: EGR 188 and DFT 133. A study of the characteristics and strengths of materials as they relate to loads, stresses, and deformations within the elastic range.

Engineering 201 Engineering Mechanics II (3)

3 hrs. Lec.

Prerequisites: EGR 107 and credit or concurrent registration in MTH 227. Dynamics — the study of linear and angular motions of particles and rigid bodies resulting from applied forces; time, mass, velocity, accelaration, work and energy, impulse and momentum: kinematics.

Engineering 202 Engineering Mechanics of Materials (3) 3 hrs. Lec.

Prerequisites: EGR 107 and credit or concurrent registration in MTH 227. A study of forces, deformation and material properties of simple structural elements. Concepts of stress, strain, and elastic properties are presented. Analyses of thinwalled vessels, members loaded in tension, torsion, bending and shear; combined loadings and stability conditions are included. Behavioral phenomena such as fracture, fatigue, and creep are introduced.

Engineering 203 Engineering Production Techniques (3)

1 hr. Lec. 5 hrs. Lab.

Prerequisite: EGR 105 or consent of instructor. Standard machining of metals, layout, boring, shaping, drilling, threading, milling, and grinding. Manufacturing of interchangeable parts, fixtures, and jigs with theoretical applications.

English 101 Composition and Expository Reading (3) 3 hrs. Lec.

Writing and reading activities designed to help the student write more clearly and effectively and read more enjoyably and efficiently.

English 102 Composition and Literature (3)

3 hrs. Lec.

Prerequisite: ENG 101. Writing practice in critical evaluation of prose narrative, poetry, and drama.

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 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) 3 hrs. Lec.

Prerequisites: ENG 101 and ENG 102. Consideration of significant literature from the fourteenth through the eighteenth centuries.

English 202 British Literature (3) 3 hrs. Lec.

Prerequisites: ENG 101 and ENG 102. Study of significant literature from the Romantic period to the present.

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English 203

World Literature (3)

3 hrs. Lec.

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Prerequisites: ENG 101 and ENG 102. Reading and analysis of significant continental European works from the Greek classical period through the Renaissance.

English 204

World Literature (3)

3 hrs. Lec.

Prerequisite: ENG 101 and ENG 102. Study of important post-Renaissance works of continental Europe, England, and America.

English 205

American Literature (3) 3 hrs. Lec.

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

English 206

American Literature (3) 3 hrs. Lec.

Prerequisites: ENG 101 and ENG 102. Reading and analysis of representative works from Whitman to the present.

English 209

Creative Writing (3) 3 hrs. Lec.

Prerequisite: ENG 101 and 102. Writing of fiction: short story, poetry, and short drama.

English 215

Studies in Literature (3)

3 hrs. Lec.

Prerequisites: ENG 101 and ENG 102. The student will read, analyze, and discuss selections in literature unified by period, genre, or theme.

English 216

Studies in Literature (3) 3 hrs. Lec.

Prerequisites: ENG 101 and ENG 102. The student will read, analyze, and discuss selections in literature unified by period, genre, or theme.

French 101

Beginning French (4)

3 hrs. Lec. 2 hrs. Lab.

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

French 102

Beginning French (4)

3 hrs. Lec. 2 hrs. Lab.

Prerequisite: French 101 or equivalent. Continuation of French 101 with emphasis on idiomatic languages and complicated syntax.

French 201

Intermediate French (3) 3 hrs. Lec.

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

French 202

Intermediate French (3) 3 hrs. 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) 3 hrs. 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)

3 hrs. 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.

Geology 101 General Geology (Physical) (4)

3 hrs. Lec. 3 hrs. Lab. or Field Studies

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

Geology 102 General Geology (Historical) (4)

3 hrs. Lec. 3 hrs. Lab. or Field Studies

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.

German 101 Beginning German (4)

3 hrs. Lec. 2 hrs. Lab.

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

German 102 Beginning German (4)

3 hrs. Lec. 2 hrs. Lab.

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

Government 201

Government (3)

3 hrs. Lec.

An introduction to the study of political science; origin and development of constitutional democracy (United States and Texas); federalism and intergovernmental relations; civil rights and liberties, local government; parties, politics and political behavior. Satisfies requirements for Texas State Teacher's Certification.

Government 202

American

Government (3)

3 hrs. Lec.

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

History 101 History of the United

States (3)

3 hrs. 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)

3 hrs. Lec.

A survey of the unfolding of United States history from the Reconstruction Era. The study includes social, economic, and political aspects of American life and follows the development of the United States as a world power. History 101 is recommended.

History 105

Western Civilization (3) 3 hrs. 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) 3 hrs. 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)

3 hrs. 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 United States from colonial times. Emphasis on political, economic, and sociological factors of the twentieth century.

Horology 131 Introduction to Horology: (5) Clock Theory and Repair

1 hr. Lec.

14 hrs. Lab.

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 move-

ment 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.

Horology 132 Introduction to Horology: (5) Modern Clock Theory

and Repair

1 hr. Lec.

14 hrs. Lab.

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.

Horology 133 Watch Cleaning and Assembly (6)

1 hr. Lec. 15 hrs. Lab.

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 case, crystal, and band. An introduction to timing record analysis is part of this course.

Horology 134 Watch Part Replacement (6) 1 hr. Lec. 15 hrs. Lab.

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.

Horology 135 Advanced Watchmaking 1 (5)

3 hrs. Lec. 32 hrs. Lab.

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.

Horology 136 Advanced Watchmaking II (5)

3 hrs. Lec. 32 hrs. Lab.

Prerequisite: 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.

Horology 137
Customer and
Business Relations (2) 2 hrs. Lec.

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) 3 hrs. Lec./Lab.

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) 3 hrs. Lec/Lab.

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)

3 hrs. Lec./Lab.

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. Permission of the instructor is required.

Human Services 131 Orientation to Human Services (3)

3 hrs. Lec.

A brief survey of historical development of social services in our society. Emphasis is on current needs, practices, and projected changes. Will involve contact with community agencies and give the student the opportunity to test his interest in people-to-people occupations.

Human Services 134 Human Services Seminar (3)

3 hrs. Lec.

A continuation of HS 131 — Orientation to Human Services with an emphasis on class discussion, sharing of experiences. A problem-solving approach to individual, family, and community problems.

Human Services 231 Procedures in Social Work (3)

3 hrs. Lec.

Prerequisites: Soc. 101, Soc. 206, concurrent enrollment in HS 242 - Field Work. The processes of social treatment used by social workers with individuals, groups, or communities. Concepts, principles, and ethics utilized by social service workers and questions of motivation, acceptance, and attitude. Techniques of listening, observing, and recording which aid the student in integrating his classroom and work experiences.

Human Services 233 Counseling for the Paraprofessional (3) 3 hrs. Lec.

Prerequisites: Permission of the coordinator, or concurrent enrollment in HS 242 - Field Work. Introduction to the principles and practices of interviewing and counseling. Exploration of the effectiveness of these techniques as applied to paraprofessional experiences of counselor and group counselor aides, mental health or social worker associates, and other "new careers" in people-to-people services.

Human Services 235 Introduction to Mental Health (3)

3 hrs. Lec.

Prerequisites: Psy. 105 or consent of coordinator. Concurrent enrollment in HS 240 - Field Work. Orientation to mental health, history, terminology, current concepts, ethical considerations. Analysis of behavior and environmental factors promoting mental health. Development of skills for identifying symptoms of maladjustment. Consideration of methods providing for emotional outlets and emotional control.

Human Services 240-242 Work Experience in Human Services (Field Work) (2) (2) 10 hrs. Lab.

Prerequisites: Permission of coordinator of Human Services program, and concurrent enrollment in HS 241 or 243. Practical occupational experience in a social agency. Ten hours per week on-job experience is required during second year of the program. HS 240 will be offered first semester; HS 242 will be offered second semester.

Human Services 241-243 Work Experience

Seminar (2) (2)

2 hrs. Lec.

Prerequisites: Concurrent enrollment in HS 240 or 242. Problem analysis and discussion of on-job experiences in a seminar with other students working in Human Services program, meeting two hours per week with program coordinator on campus. HS 241 will be offered first semester; HS 243 will be offered second semester.

Humanities 101 Introduction to the Humanities (3)

3 hrs. 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.

Industrial Welding (see Welding)

Journalism 101 Introduction to Mass

Communications (3)

A survey course designed to provide students with 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)

2 hrs. Lec. 3 hrs. Lab.

3 hrs. Lec.

Prerequisite: Typing ability. Required for all journalism majors. Journalism 101 not prerequisite for 102. Beginning reporting, study of types of news, body treatment of story, feature in lead, facts, background, and practice in writing straight news story.

Journalism 103 News Gathering and Writing (3)

2 hrs. Lec. 3 hrs. Lab.

Prerequisite: Jour. 102. Required of 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, amusement, government, and news of interest to women. Additional laboratory work on the student newspaper.

Journalism 104, 105 (Freshman) 202, 203 (Sophomore) (1)

3 hrs. Lab.

Prerequisite: Permission of instructor. Individual staff assignments on 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 CREDIT HOURS.

Journalism 201 Editorial and Feature Writing (3)

3 hrs. 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 204 News Editing and Copy Reading (3)

3 hrs. 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)

1 hr. Lec. 8 hrs. Lab.

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.

Machine Shop 134 Basic Milling Machine (5) 1 hr. Lec. 8 hrs. Lab.

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.

Machine Shop 135 Intermediate Lathe (5)

1 hr. Lec. 8 hrs. Lab.

Prerequisite: MS 131 or 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.

Machine Shop 136 Intermediate Milling Machine (5)

1 hr. Lec. 8 hrs. Lab.

Prerequisite: MS 131 or 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.

Machine Shop 233 Advanced Lathe (5)

1 hr. Lec. 8 hrs. Lab.

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.

Machine Shop 234 Advanced Milling Machine (5)

1 hr. Lec. 8 hrs. Lab.

Further experience is gained on the milling machine. 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 milling machine is made. Introduction to surface grinding and grinding wheel safety is made during this semester.

Machine Shop 235 Applied Lathe (5)

1 hr. Lec. 8 hrs. Lab.

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.

Machine Shop 236 Applied Milling Machine (5)

1 hr. Lec. 8 hrs. Lab.

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.

Mathematics 104 Elementary Functions and Coordinate Geometry I (5) 5 hrs. 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)

5 hrs. Lec.

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

Mathematics 106 Elementary Functions and Coordinate Geometry (5) 5 hrs. 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, and trigonometric functions, and functions of two variables, and analytical geometry which includes conics, transformation of coordinates, polar coordinates, and parametric equations.

Mathematics 111 Mathematics for Business and Economics I (3) 3 hrs. Lec.

Prerequisite: Two years of high school algebra or DM 093. 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) 3 hrs. Lec.

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

Mathematics 115 College Mathematics I (3) 3 hrs. 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) 3 hrs. 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 126 Introductory Calculus (5) 5 hrs. Lec.

Prerequisite: MTH 105 or MTH 106 or MTH 121 or equivalent. 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) 3 hrs. Lec.

Prerequisite: One year of high school algebra or DM 091. Common application of percent to business problems, simple and compound interest, bank discount, payrolls, taxes, purchase discounts, periodic payment plans, depreciation, overhead, business statements, markup and markdown, various problems in retailing.

Mathematics 139 Applied Mathematics (3) 3 hrs. Lec.

Prerequisite: One year of high school algebra or DM 091. Commercial, technical, and more simple scientific uses of arithmetic, algebra, geometry, and trigonometry. 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) ,3 hrs. 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 of simultaneous equations, stated problems, determinants, progressions, and the binomial theorem.

Mathematics 196 Technical Mathematics (3) 3 hrs. 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) 3 hrs. 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)

3 hrs. 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) 4 hrs. Lec.

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

Mathematics 228 Mathematical Analysis II (3) 3 hrs. 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 095 Applied Music (1)

Private instruction in the student's performance area. Primarily for music majors who are beginners or with limited experience. One half-hour lesson a week. Open to students registered in music theory, ensembles, and other music major or minor courses.

Music 101 Freshman Theory I (4) 3 hrs. Lec. 3 hrs. 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 II (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Music 101 or permission 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) 3 hrs. 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) 2 hrs. Lab.

Music 106

French Diction (1) 2 hrs. Lab.

Music 107 German Diction (1)

2 hrs. Lab.

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

Music 110 Literature (3)

3 hrs. Lec.

A course dealing with the characteristic 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

Literature (3)

3 hrs. Lec.

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) 3 hrs. 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) 3 hrs. Lec.

Prerequisite: Music 113. A continuation of Music 113.

Music 117

Piano Class I (1)

2 hrs. 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)

2 hrs. Lab.

Prerequisite: Mus. 117 or the equivalent. Includes technique skills, harmonization, transposition, improvisation, accompanying, sight-reading, and performing various styles of repertoire.

Music 119

Guitar Class I (1)

2 hrs. Lab.

Class instruction covering the basics of guitar skills, designed primarily for those with no knowledge in the reading of music or playing the guitar.

Music 120 Guitar Class II (1)

2 hrs. 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 121-140 Applied Music (1)

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.

Music 150 Chorus (1)

3 hrs. Lab.

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)

2 hrs. Lab.

A course teaching the principles of breathing, voice production, tone control, enunciation, and phrasing. Open to any student.

Music 152

Voice Class II (1)

2 hrs. Lab.

A continuation of Music 151 with emphasis on solo singing, appearance in studio recital, part-singing, stage deportment, personality development. Open to any student.

Music 155

Vocal Ensemble (1)

3 hrs. Lab.

A select group of voices concentrated upon excellence of performance. No prerequisite required.

Music 171 Woodwind Ensemble (1) 3 hrs. Lab.

A 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) 3 hrs. Lab.

A 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) 3 hrs. Lab.

A 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) 3 hrs. Lab.

A 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) 3 hrs. Lab.

A 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) 3 hrs. 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)

3 hrs. 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)

2 hrs. 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.

Music 201

Sophomore Theory I (4) 3 hrs. Lec. 3 hrs. Lab.

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

Music 202

Sophomore Theory II (4) 3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Music 201 or equivalent or by permission 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, twentieth century melody and harmony, tonality in twentieth century music, twentieth century formal processes with a comparable advance in sight-singing keyboard harmony and ear training.

Music 221-240 Applied Music (2)

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

Music 251-270 Applied Music (3)

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.

Philosophy 102 Introduction to Philosophy (3)

3 hrs. 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 principle views, both ancient and modern, are examined as possible solutions.

Philosophy 105 Logic (3)

3 hrs. Lec.

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

Philosophy 203 Ethics (3)

3 hrs. 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 vivify 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.

Philosophy 207 History of

Ancient Philosophy (3) 3 hrs. Lec.

Prerequisite: Open to sophomores only. This course is a historical examination of philosophy from pre-Socratic times to the Renaissance. Connections between the pre-Socratics, Plato, and Aristotle will be drawn. Stoicism, Epicureanism, and Scholasticism will be considered.

Philosophy 208 History of

Modern Philosophy (3) 3 hrs. Lec.

Prerequisite: Open to sophomores only. A continuation of Phil 207. Starting with the Renaissance, it examines Western philosophic thought through the 19th century. Special emphasis will be given Continental Rationalism, British Empiricism, Kantian metaphysics and epistemology, and the Hegelian system as it is related to the 20th century philosophies. Emphasis will be placed on the historical relationship existing between these schools of thought.

Photography 110 Introduction to Photography and Photo-Journalism (3)

2 hrs. Lec. 4 hrs. 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.

THE DIVISION OF HEALTH, PHYSICAL EDUCATION, AND RECREATION

The curriculum of the Physical Education Division offered by this institution includes activity courses that are elective and are designed to meet the activity requirements of 4-year institutions. The Physical Education Division offers students an opportunity for participation in the following areas:

- 1. Physical education activity courses.
- 2. Intramural activities.
- Theory and lecture courses for majors and minors.

The regular physical education program includes areas designed to offer beneficial activities and experiences that the student will find enjoyable and worthwhile. Such activities include volleyball, basketball, bowling, golf, tennis, rhythmic movements, etc. Activities within the program shall provide the student an opportunity to become involved on an individual, dual, and/or team basis.

PEH 100 Lifetime Sports Activities I (1)

3 hrs. 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. Uniform required.

Physical Education 101 Fundamentals of Health (3)

3 hrs. 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 M Touch

Football/Soccer (1) 2 hrs. Lab.

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

Physical Education 110 Community

Recreation (3) 3 hrs. Lec.

Principle, organization, and the function of recreation in our society: Designed primarily for those students seeking a major or minor in health, physical education, or recreation.

Physical Education 111

Beginning
Wrestling (1) 2 hrs. Lab.

Basic wrestling fundamentals, techniques, rules, and strategy will be taught. Emphasis will also be placed upon spectator appreciation. Uniform required.

Physical Education 113 Handball and

Racketball (1) 2 hrs. Lab.

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

Physical Education 115 Physical Performance Activities (1)

3 hrs. Lab.

A course designed to evaluate and measure the student's physical condition and prescribe an individual program of exercise to carry him through life. Majority of course work involves active participation in prescribed use of the Physical Performance Lab. Uniform required.

Physical Education 120 Bowling (1)

2 hrs. Lab.

An activity course that will provide the student an opportunity to participate and improve skills in one of our more popular recreational activities.

Physical Education 121 Folk Dance (1)

2 hrs. Lab.

Participation in a variety of folk dances from other lands. Cultural backgrounds and costume study is included as a part of the course.

Physical Education 122 Tumbling and Gymnastics (1)

2 hrs. Lab.

A course provided for the students whereby instruction in the basic skills of tumbling and gymnastics is offered. Uniform required.

Physical Education 124 Social Dance (1) 2 hrs. 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.

Physical Education 125W Figure Training and

Conditioning Exercise (1) 3 hrs. Lab.

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

Physical Education 127M Volleyball and

Basketball for Men (1) 2 hrs. Lab.

Fundamental instructions and practice in volleyball and basketball skills. Male students only. Uniform required.

Physical Education 127W Volleyball and

Basketball for Women (1) 2 hrs. Lab.

Fundamental instructions and practice that are designed to develop knowledge and skills in volleyball and basketball. Female students only. Uniform required.

Physical Education 129

Modern Dance (1) 2 hrs. Lab.

A course designed for those students who desire an opportunity to pursue creative dance instruction. Uniform required.

Physical Education 131M Weight Training and Conditioning for Men (1) 3 hrs. Lab.

A course designed for those students who desire instruction and participation in weight training and conditioning techniques. Uniform and fee required. Three activity hours per week.

Physical Education 144 Introduction to

Physical Education (3) 3 hrs. Lec.

Designed for professional orientation in the area of physical education. Brief history, philosophy, modern trends in physical education, teacher qualifications, vocational opportunities, expected competences, and skill testing are included within scope of the course. For majors and minors and students with specific interest.

Physical Education 147 Sports Officiating I (3)

2 hrs. Lec. 2 hrs. Lab.

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 programs.

Physical Education 148 Sports Officiating II (3)

2 hrs. Lec. 2 hrs. Lab.

Designed for those students desiring further knowledge and appreciation of sports. Sports included are softball, track and field events, baseball, and volleyball.

Physical Education 200 Lifetime Sports Activities II (1)

3 hrs. 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.

Physical Education 210 Sports Appreciation for the Spectator (3)

3 hrs. 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 and

Advanced Golf (1) 2 hrs. Lab.

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

Physical Education 219 Intermediate and Advanced Tennis (1)

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

Physical Education 222 Intermediate and Advanced Gymnastics (1) 2 hrs. Lab.

Prerequisite: PEH 122 or permission of instructor. Designed for those students who wish to pursue gymnastic training in a more advanced level. Emphasis on gymnastic routines and use of apparatus. Uniform required.

Physical Education 236 The Coaching of Football and Basketball (3)

2 hrs. Lec. 2 hrs. Lab.

2 hrs. 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)

3 hrs. Lec.

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

Physical Science 115 Physical Science (3)

3 hrs. Lec. 2 hrs. Lab.

A study of the basic principles and concepts of physics, chemistry, and nuclear science. The course relates these basic sciences to man's physical world at an introductory level. The course is directed toward the non-science major and carries no science prerequisite.

Physical Science 116 Physical Science (3)

3 hrs. Lec. 2 hrs. 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 and carries no science prerequisite.

Physics 111-112 General Physics (4) (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: DM 093 or equivalent. For pre-dental, pre-nursing, pre-aviation, pharmacy, architecture and all other students who require a two-semester course in physics but do not intend to take additional courses in physics. The first semester (111) is a study of mechanics and heat, vectors, force, momentum, energy, linear and angular motion, kinetic theory, calorimetry, and change of state. The second semester (112) is a study of electricity, magnetism, light and sound. Courses must be taken in sequence.

Physics 131-132 Applied

Physics (4) (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: High school algebra and trigonometry or equivalent. A one-year course designed to explain the basic concepts of the properties of matter and mechanics, heat, sound, light, electricity, and magnetism, with emphasis on applications and problem solving. Designed primarily for technical programs. Courses must be taken in sequence.

Physics 201 General Physics (4)

3 hrs. Lec. 3 hrs. 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, engineering, and premedical majors.

Physics 202

General Physics (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: PHY 201 and credit or current registration in MTH 227. Principles and applications of heat, electricity and magnetism, and optics emphasizing fundamentals, concepts, problem solving, notation, and units.

Physics 203 Modern Physics (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: PHY 201 and concurrent registration in PHY 202. Principles and applications of light and atomic and nuclear physics. Designed for science majors.

Pilot Technology 130 Ground School Private (2) 2 hrs. Lec.

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. Satisfactory completion of this course should qualify the student to pass the private pilot written examination.

Pilot Technology 132 Flight Private Pilot (1) 18 Flt hrs/sem.

8 hours dual flight instruction and 10 hours solo flight designed to complete flight-hour requirements for the Private Pilot Certificate. Students will receive credit for the course upon satisfactory completion of flight prerequisite for the private pilot flight examination.

Pilot Technology 133 Flight Basic I (1)

10 Flt hrs/sem.

10 hours dual flight instruction in preparation for solo flight. The course is designed for pilot technology majors, as an elective for aviation science majors, or for student interested in a practical flight experience and basic knowledge of aircraft operations. Pilot technology majors should enroll concurrently in PIT 135-Flight Basic II, PIT 130-Ground School Private, and obtain a student pilot certificate.

Pilot Technology 135 Flight Basic II (1) 12 Flt hrs/sem.

Prerequisite: Concurrent enrollment in PIT 133. Continuation of PIT 133 — Flight Basic 1. 5 hours dual flight instruction and 7 hours solo flight to be applied toward private pilot certificate. Minimum medical requirements: Current third class medical certificate. Suggested medical requirements: Current second-class medical certificate.

Pilot Technology 136 Aero Engines

and Systems (3)

3 hrs. Lec.

Prerequisite: Credit or concurrent enrollment in AA 131, PT 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, fanjet, 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 231 Flight Commercial 1 (2) 30 Flt hrs/sem.

Prerequisite: Private Pilot Certificate. 10 hours dual flight instruction and 20 hours solo flight to apply toward Commercial Pilot Certificate. Medical requirements: Current second-class medical certificate.

Pilot Technology 232 Ground School

Commercial (3)

3 hrs Lec.

Prerequisite: Private Pilot Certificate. Indepth 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, and Flight Planning. Course includes 10 hours instrument instruction in a synthetic trainer. Satisfactory completion of this course should qualify the student to pass the commerical pilot written examination.

Pilot Technology 233 Flight Commercial II (3) 46 Flt hrs/sem.

Prerequisite: Completion of PIT 231 and concurrent enrollment in PIT 232. Course

includes 10 hours instrument flight instruction, 6 hours dual flight instruction, and 30 hours solo flight to apply toward Commercial Pilot Certificate. In addition 10 hours instrument instruction in synthetic trainer may be provided through related Ground School-Commercial exercise.

Pilot Technology 234 Flight Commercial III (3) 46 Flt hrs/sem.

Prerequisite: Completion of PIT 233 and PIT 232. Course includes 6 hours dual flight instruction and 30 hours solo flight plus 5 hours dual and 5 hours solo in a more sophisticated aircraft, all of which will apply to fulfill flight-law requirements for the Commerical Pilot Certificate. Students will receive course credit upon satisfactory completion of flight prerequisite to the Commercial Pilot flight examination.

Pilot Technology 236 Aero Physics (3)

3 hrs. Lec.

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)

3 hrs. Lec.

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 240 Ground School Instrument (2)

2 hrs. Lec.

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) 30 Flt hrs/sem.

Prerequisite: Private or Commercial Pilot Certificate. 30 hours of instrument flight instruction or 20 hours instrument flight instruction plus 10 hours instruction in an instrument, synthetic trainer in the required flight disciplines to qualify student for the FAA Instrument Rating.

Pilot Technology 242 Ground School Flight Instructor (2)

2 hrs. Lec.

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) 30 Flt hrs/sem.

Prerequisite: Commercial Pilot Certificate or Private Pilot Certificate with 200 hours logged flight time. 25 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.

Plastics Technology 131 Introduction to Plastics (4)

3 hrs. Lec. 3 hrs. Lab.

Covers a description of the different plastics, beginning with a brief outline of organic chemistry necessary for understanding. Discussion and laboratory will cover the different types of plastics: thermosets and thermoplastics, with identification tests in the lab including polymerization, molecular structure, molecular weight, and various mechanical tests.

Plastics Technology 133 Extrusion Molding (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Credit or current registration if PT 131. This course will cover extrusion equipment with emphasis on processing materials such as styrene, vinyls, polyethylene, polypropylene, A.B.S. and ancillary materials. Laboratory involves operating the extrusion equipment, determining operating conditions for different materials.

Plastics Technology 134 Thermo-Forming (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Credit or current registration in PT 131. Discussion will cover the material characteristics as related to thermoforming processes and thermoforming equipment. Thermoforming equipment will be discussed in lecture. Laboratory involves operating thermoforming equipment with various materials.

Plastics Technology 135 Properties of

Materials (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Credit or current registration in PT 131 and MTH 195. Study of various plastics with special emphasis on fitting the proper plastic to the correct end use. Problems will be introduced requiring the practical use of theory developed in

lecture. Properties relating to mold construction, welding, decorating, and forming (extrusion, injection, thermoforming) will be discussed.

Plastics Technology 136

Injection Molding (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Credit or current registration in MTH 195 and PT 131. The lecture will cover the material characteristics of polymers as related to injection mold processes. The student will learn to operate the injection molding machines in the laboratory. Materials to be used in the machine operations will include such polymers as polystyrene, polyethylene, nylon and polycarbonates.

Plastics Technology 138 Plastic Finishing (4)

3 hrs. Lec. 3 hrs. Lab.

Areas covered include printing, cementing, plating, hot stamping, polishing, punching, and drilling as they apply to thermoplastics and thermosets. Laboratory covers the practical applications of finishing.

Plastics Technology 231 Thermo-Plastic Process Equipment

Maintenance (4)

3 hrs. Lec. 3 hrs. Lab.

A review of process equipment used for plastics previously studied with emphasis on maintenance problems. Additional topics will include lubrication and preventive maintenance of equipment and dies.

Plastics Technology 232 Plastic Fabrication

Manufacture (4)

3 hrs. Lec. 3 hrs. Lab.

An overview of all equipment for processing plastics. Both thermoplastic- and thermosetting-forming equipment will be discussed. In addition to forming equipment, other types of fabrication methods will be discussed. The laboratory will include forming plastics by the various methods.

Plastics Technology 233 Testing and Quality

Control (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Credit or current registration in MTH 195. Study is made of the mechanical, electrical, optical, and environmental characteristics of different plastics. Also, a study and use of precision measurement tools and devices, with emphasis on their use in inspection of manufactured products.

Plastics Technology 234 Production Planning and Process Control (3)

3 hrs. Lec.

A study of basic principles and techniques of plant production planning and control. Study of production objectives; design and improvement of processes, work methods, plant layout, and physical facilities; quality control; budgetary and cost control; and materials management.

Plastics Technology 235 Fundamentals of

Electricity (4)

3 hrs. Lec. 3 hrs. 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.

Plastics Technology 236 Hydraulics and

Pneumatics (3)

2 hrs. Lec. 3 hrs. Lab.

Prerequisite: Credit or current registration in MTH 195. The course is designed to give the student a sound understanding of the basic principles of hydraulics and pneumatics. The student discusses and learns the operation and application of basic hydraulic and pneumatic circuits, pumps, valves, activators, power units, controls, and cylinders.

Psychology 105 Introduction to Psychology (3)

3 hrs. 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.

Psychology 131 Human Relations (3) 3 hrs. 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 Human Growth and Development (3)

3 hrs. Lec.

Prerequisite: Psy 105. A study of human growth, development, and behavior, emphasizing the physiological and 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) 3 hrs. 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)

3 hrs. 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) 3 hrs. 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 Advanced Reading (3) 3 hrs. Lec. and Lab.

Prerequisite: Successful completion of DR 091 or equivalent. Advanced Reading 101 emphasizes the development of advanced techniques in reading for pleasure as well as for information. Improved reading comprehension, vocabulary development, and flexibility of reading rate are stressed. In addition, advanced techniques for note-taking, exam-taking, studying, and reading for specialized content areas are developed.

Religion 101 Religion in American Culture (3) 3 hrs. Lec.

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

Religion 102 Contemporary Religious Problems (3) 3 hrs. 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)

3 hrs. Lec.

Prerequisite: Sophomore standing or consent of instructor. 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.

Secretarial Training (See Business 162)

Shorthand (See Business 163-164-263)

Social Science 131-132 American Civilization (3) (3)

3 hrs. 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.

Sociology 101 An Introduction to Sociology (3)

3 hrs. Lec.

An inquiry into the nature of society and the foundations of group life, including institutions, with a broad presentation of the bases of social change, processes, and problems.

Sociology 102 Social Problems (3)

3 hrs. Lec.

Prerequisite: Soc 101. A study of the background emergence and scope of current group relationships of our society, emphasizing topics as they apply to social adjustment in the family and the total community environment.

Sociology 203

Marriage and Family (3) 3 hrs. Lec.

An analysis of courtship patterns, marriage and family forms, relationships and functions, and sociocultural differences in family behavior.

Sociology 204 American Minorities (3) 3 hrs. Lec.

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. Sophomore standing or Sociology 101 recommended.

Spanish 101

Beginning Spanish (4)

3 hrs. Lec. 2 hrs. Lab.

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

Spanish 102

Beginning Spanish (4)

3 hrs. Lec. 2 hrs. Lab.

Prerequisite: Spa. 101 or equivalent. Continuation of Spanish 101 with emphasis on idiomatic language and complicated syntax.

Spanish 201 Intermediate Spanish (3) 3 hrs. Lec.

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

Spanish 202 Intermediate Spanish (3) 3 hrs. Lec.

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

Speech 105 Fundamentals of Public Speaking (3)

3 hrs. 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)

3 hrs. Lec.

Prerequisite: Speech 105 or consent of instructor. A study of the mechanics of speech applied to improvement of the individual's voice and pronunciation.

Speech 110 Reader's Theatre Workshop (1)

2 hrs. Lab.

Prerequisite: Permission of the instructor. 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) 2 hrs. 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 hour of credit.

Speech 205 Discussion and Debate (3)

3 hrs. Lec.

Prerequisite: Speech 105 or consent of the instructor. 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) 3 hrs. Lec.

Prerequisite: Speech 105 or consent of instructor. A study of fundamental techniques of analyzing various types of literature, and practice in preparing and presenting selections orally. Emphasis on individual improvement.

Teacher Aides 129 Communication Skills for Teacher Aides (3) 3 hrs. Lec.

This course is designed to test and enhance the teacher aide's basic communication skills in reading, writing, speaking, and listening. It will include also a survey of techniques and methods for encouraging the development of these language skills in students with whom the aide works. Creative writing, story telling, appreciation of literature, tutoring techniques for reading and writing, cursive and manuscript handwriting will be included in the language skills emphasized.

Teacher Aides 131 Teacher Aide Techniques 1 (3)

3 hrs. Lec.

The primary purpose of this course is to define the role of the teacher aide within the school structure and to develop an understanding of the organization and administration of the public school system. Special attention will be given to the development of effective interpersonal relationships. Through direct experiences with students on a one-to-one basis, the teacher aide trainee will observe and study the developmental patterns of students. A study will be made of the general principles of human growth and development.

Teacher Aides 133 Teacher Aide Techniques II (3)

3 hrs. Lec.

This course is designed to further develop the teacher aide trainees' understanding, skills, and attitudes in providing a wholesome learning environment in the classroom. The facilitation of learning with small groups of students will be emphasized through didactic and field experiences. The unique factors affecting the growth and development of inner city students will be emphasized, along with a study of the teacher aide responsibilities as a member of the educational team.

Teacher Aides 135 Arts and Crafts for Teacher Aides (3)

3 hrs. Lec.

The course acquaints the teacher aide with the variety of creative art materials and methods appropriate for use in programs for students as well as opportunities for participation in the use of these materials. Creating an attractive classroom environment with the use of classroom displays, charts, poster art, and bulletin boards will be incorporated in the course.

Teacher Aides 231 Teacher Aide Seminar I (2) 2 hrs. Lec.

The first seminar section is designed to provide an opportunity for the teacher aide trainees to discuss their experiences as trained observers and participants in the classroom. Group discussions and activities will emphasize classroom strategies and procedures, supervision techniques, and instructional skills.

Teacher Aides 232 Teacher Aide Practicum I (4)

20 hrs. Lab.

The practicum section will include supervised laboratory experiences in inner city classrooms under the direct supervision of a teacher. Basic principles of learning and motivation will be applied to the teaching-learning situation.

Teacher Aides 235 Teacher Aide Seminar II (2) 2 hrs. Lec.

This section of the seminar will provide the teacher aide trainee an opportunity to continue his experiences in the classroom while obtaining professional consultation and group experiences with his classmates. Small group interaction will enable the trainee to share experiences. demonstrate specific skills and techniques, participate in simulated classroom situations, and clarify hypotheses developed in the supporting educational activities. The overall objective will be to provide a means for integrating and relating the total individual and collective experiences of the curriculum into a meaningful pattern.

Teacher Aides 236 Teacher Aide Practicum II (4)

20 hrs. Lab.

This section of the practicum will continue to provide the teacher aide trainee supervised laboratory experiences in classrooms under the supervision of a teacher. Basic principles of learning and motivation will be applied to the teaching-learning situation.

Theatre 100 Rehearsal and Performance (1)

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.

Theatre 101 Introduction to the Theatre (3)

3 hrs. 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)

3 hrs. 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 plays and the viewing of specially selected films.

Theatre 103 Stagecraft I (3)

2 hrs. Lec. 3 hrs. Lab.

A study of the technical aspects of play production including set design and construction, stage-lighting, makeup, costuming, and related areas.

Theatre 104 Stagecraft II (3)

2 hrs. Lec. 3 hrs. Lab.

Prerequisite: Theatre 103 or consent of the 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)

2 hrs. Lec. 3 hrs. 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)

2 hrs. Lec. 3 hrs. Lab.

Prerequisite: Theatre 106 or consent of the instructor. Continuation of Theatre 106 with emphasis on problems of complex characterization, ensemble, acting, stylized acting, and acting in period days.

Theatre 108 Movement For

The Stage (3)

1 hr. Lec. 4 hrs. 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)

3 hrs. Lec.

3 hrs. Lec.

A study of the mechanics of theatre speech applied to improvement of the individual's voice and pronunciation.

Theatre 110 History of the

Theatre I (3)

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 the Theatre II (3)

3 hrs. Lec.

Development of the theatre from the seventeenth century through the twentieth century.

Theatre 115 Mime (2)

1 hr. Lec. 21/2 hrs. Lab.

Prerequisite: Stage Movement, Theatre 106. Exploration of the expressive significance and techniques of mime.

Typing (See Business 173-174-273)

Industrial Welding 130 Pattern Layout (3)

2 hrs. Lec. 3 hrs. Lab.

This course is devoted to the preparation of patterns, pattern development, and the shop economics involved. Job applications, general layout work with structural material.

Industrial Welding 133 Introductory Welding (4)

1 hr. Lec. 8 hrs. Lab.

Study of the basic fundamentals of standard oxyacetylene and metallic arc welding and cutting processes currently utilized in the welding industry, practice of effective safety precautions and equipment care, and preventive maintenance.

Industrial Welding 134 Welding

Applications (4)

1 hr. Lec. 8 hrs. Lab.

Prerequisite: WE 133 or equivalent background experience by instructor's approval. Study of the various soldering and brazing processes, standard welding symbols, welding positions and procedures with an introduction to inert gas shielded metallic arc welding processes.

Industrial Welding 135 Quality Control

in Welding (4)

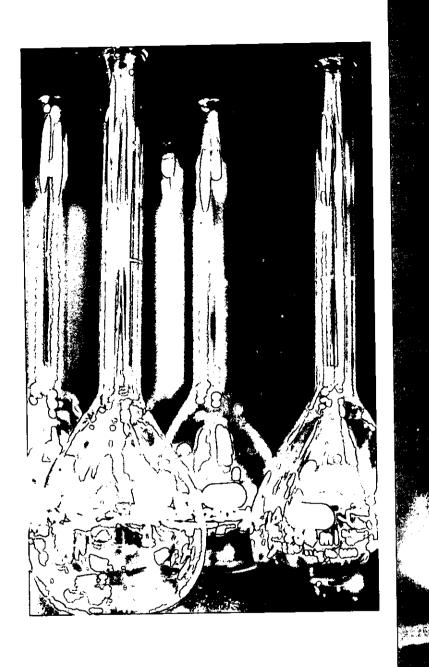
1 hr. Lec. 8 hrs. Lab.

Prerequisite: WE 133 and WE 134, or equivalent background experience by instructor's approval. Study of weld quality evaluation, standard inspection techniques, weld quality testing equipment, regulations, specifications, codes, material properties, and welder qualification requirements.

Industrial Welding 136 Special Welding Applications (4)

1 hr. Lec. 8 hrs. Lab.

Prerequisite: WE 133, WE 134, and WE 135, or equivalent background experience by instructor's approval. Study of special cutting, joining, and surfacing processes of ferrous and non-ferrous materials, specialized equipment, general welding shop production economics, and related technical data.







Technical-Occupational Programs offered in the Dallas County Community College District

Mountain View College

Accounting Technician Aviation Administration Avionics Technology Drafting and Design Technology **Educational Office Occupations Electronics Technology** Horology (Watch Repair) **Human Services** Industrial Welding Machine Shop Mid-Management Office Skills & Systems Pilot Technology Plastics Management and Technology Plastics Technology Secretarial Careers Teacher Aide

Eastfield College

Accounting Technician Air Conditioning and Refrigeration Technology Auto Body Automotive Technology Child Development Diesel Mechanics Digital Electronics Technology Drafting and Design Technology Graphic Arts **Human Services** Mid-Management Recreational Leadership Secretarial Careers Training Paraprofessionals for the Deaf Transportation Technology

El Centro College

Accounting Technician Apparel Design Architectural Technology Associate Degree Nursing **Data Processing Programmer** Dental Assisting Technology **Drafting and Design Technology** Environmental Technology Fire Protection Technology Food Service — Dietetic Technician Food Service Operations Human Services Interior Design Library Technical Assistant 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
Construction Management
and Technology
Electromechanical Technology
Fluid Power Technology
Horticulture Technology
Human Services
Mid-Management
Quality Control Technology
Secretarial Careers
Teachers Aide

TECHNICAL-OCCUPATIONAL 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	Cambus
Food Marketing Northeast	Campus
General Clerical (one year) Both c	ampuses
General Office Occupations Both c	ampuses
Instructional Media Northeast	Campus
Legal Secretarial Both c	ampuses
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
Plastics Management and Technology
Plastics Technology
Industrial Welding

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.

	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	Õ	3
Bus 105 — Introduction to Business	3	Ō	3
Bus 201 — Principles of Accounting	3	Ö	3
Bus 234 — Business Law	3	ŏ	3
		_	
	15	0	15
Spring Semester			
AA 133 — Air Transportation	3	0.	3
AA 134 — Aviation Law	3	ň	3
Com 132 — Applied Composition and Speech	3	0	3
	_	v	=
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.

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester			
AA 231 — Air Cargo	3	0	3
AA 233 — Transportation and Traffic 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			
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.

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester		-	_
AA 231 — Air Cargo	3	0	3
Eco 201 — Principles of Economics	3	Õ	3
SS 121 — American Civilization	3	Õ	3
Bus 233 — Advertising and Sales Promotion	3	Õ	3
AA 235 — Airline Management	3	Ö	3
	15	0	15
Spring Semester			
AA 236 — Aviation Marketing	3	0	3
Bus 230 — Salesmanship	3	Ŏ	3
SS 132 — American Civilization	3	ŏ	3
Eco 202 — Principles of Economics	3	Ď	3
Elective	. 3	Ŏ	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.

	Lec. Hrs.	Lab. Hrs	Credit Hrs
Fall Semester			
AA 231 — 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	Ŏ	3
6	_	_	_
	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	ŏ	3
	3	ñ	3 3
CS 175 — Introduction to Computing Science	3	0	3
Elective	3	U	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.

Fall Semester	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Com 131 — Applied Composition and Speech	3	0	3
Mth 195 — Technical Mathematics for Electronics Phy 131 — Applied Physics	3	0	3
ET 135 — D.CA.C. Theory and Circuit Analysis	3 5	3 3	4 6
AV 130 — Introduction to Aircraft Electronics Systems		0	2
	16	6	18
Spring Semester			
Com 132 — Applied Composition and Speech Mth 196 — Technical Mathematics	3	0	3
for Electronics	3	0	3
Phy 132 — Applied Physics ET 193 — Active Devices	3	3	4
AV 131 — Active Devices AV 131 — Aircraft Communications Systems	3 3	3 3	4
AV 131 — Aliciait Communications systems	3	3	4
	15	9	 18
Fall Semester		•	
SS 131 — American Civilization	3	0	3
Dft 182 — Technical Drafting	1	3	2
FT 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 AV 234 — Aircraft Electronic Systems Checkout	1	5	3
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 Compositiona and Speech	3	0	3 3
Mth 195 — Technical Mathematics	3	0	3
SS 131 — American Civilization	3	0	3
	12	8	<u> </u>
Suring Samoata.			
Spring Semester Dft 133 — Intermediate Drafting	2	4	3
Com 132 — Applied Composition and Speech	3	0	3
Mth 196 — Technical Mathematics	3 3 2	0	3 3 3 3
SS 132 — American Civilization	3	0	3
Egr 106 — Descriptive Geometry	2	4	3
·	_	_	
	13	8	15
Fall Semester	2	^	2
Egr 188 — Statics	3 2	· 4	3
*Dft 231 — Electronic Drafting Dft 232 — Technical Illustration	2	4	3 3 4 2
Dit 232 — Technical Illustration Phy 424 — Applied Physics	3	3	3 4
Phy 131 — Applied Physics Oft 135 — Reproduction Processes	1	3	2
Dit 133 — Reproduction Processes			_
	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 4
Phy 132 — Applied Physics	3 3 3	3	
Psy 131 — Human Relations	3	0	3
	40	_	_
	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.

Fall Semester	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Com 131 — Applied Composition and Speech	3	0	3
Mth 195 — Technical Mathematics for Electronics Phy 131 — Applied Physics Oft 182 — Technical Drafting	3	Ō	3
Phy 131 — Applied Physics	3	3	4
El 190 — D.C. Circuits and Electrical	1	3	2
Measurements	3	3	4
	13	9	16
Spring Semester			
Com 132 — Applied Composition and Speech Mth 196 — Technical Mathematics for Electronics	3	0	3
Mth 196 — Technical Mathematics for Electronics	3	0	3
ET 191 — A.C. Circuits	3	3	4
FT 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	Ŏ	3
	1	2	2
Egr 186 — Manufacturing Processes ET 231 — Special Circuits	3	3	4
FT 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 FT 233 — Industrial and Microwave Electronics	3	0	3
Technology	3	3	4
ET 234 — Electronic Circuits and Systems	0	6	3
	<u> </u>	9	- 16
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EDUCATIONAL OFFICE OCCUPATIONS (Associate Degree of Applied Arts and Sciences)

This 2-year program is designed to provide a sound educational basis for persons already employed or for persons desiring to enter employment in the field of education. Special emphasis will be placed on practical business methods, record-keeping, psychology of education, and human relations. Upon completion of the courses in the curriculum pattern listed below, the student receives an Associate Degree in Applied Science.

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
First Semester		_	_
Bus 131 — Bookkeeping	3	3	3
Bus 161 — Office Machines	1	2	2 3 3 2
Bus 163 — Beginning Shorthand	2	3	3
Bus 140 — Educational Processes	3	0	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	10	16
Second Semester		_	_
Bus 160 — Machine Transcription	3	0	3
Bus 162 — Secretarial Training	3	0	3
Bus 164 — Intermediate Shorthand	2	3	3
Hum 101 — Introduction to Humanities OR			
Psy 105 — Introduction to Psychology OR	3	0	3
Soc 101 — Introduction to Sociology	3	U	3
Elective			J
	11	<u>_</u>	<u> </u>
	8.1	3	13
Third Semester	_	_	_
Bus 231 — Business Correspondence	3	0	3
Bus 263 — Advanced Shorthand OR			
Mth 130 — Business Mathematics OR		_	_
*LT 131 — Introduction to Libraries	2	3	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
Bus 273 — Advanced Typing	1	2	2
	40	<u>-</u>	<u> </u>
	12	Э	14

^{*}LT 131 — Introduction to Libraries, is offered at El Centro

Fourth Semester

Psy 131 — Current Practical Problems Psy 131 — Human Relations SS 132 — American Civilization OR	3 3	0 0	3 3
Hst 102 — History of the United States CS 175 — Introduction to Computing Science Elective	3 3	0	3 3 3
	_		_
	12	Λ	15

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.

	Lec.	Lab.	Total Contact Hours	
*Hor 131 — Introduction to Horology: Antique	,			
Clock Theory and Repair	1	14	210	5
*Hor 132 — Introduction to Horology:	•	• •	0	•
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.

HUMAN SERVICES

(Associate Degree of Applied Arts and Sciences)

The Associate Degree Program will develop competencies for students to enter employment in paraprofessional positions as social service assistants in various social and mental health agencies. The first year of the program consists of a basic "core curriculum" followed by a "branching" into either social worker assistant or mental health assistant options in the second year of the program.

Curriculum Pattern

Semester I Lec. Lab. Credit Eng 101 — Composition and Expository Reading OR Com 131 — Applied Composition and Speech Psy 105 — Introduction to Psychology OR HD 105 — Basic Processes of Interpersonal Relationships 3 0 3

First Year Core

Semester II Eng 102 — Composition and Literature OR Com 132 — Applied Composition and Speech Psy 105 — Introduction to Psychology OR	3	0	3
HD 105 — Basic Pocesses of Interpersonal Relationships	3	0	3
Soc 101 — Introduction to Sociology OR		•	•

	15	0	15
*Elective	3	0	3
HS 134 — Human Services Seminar	3	0	3
Soc 102 — Social Problems	3	0	3
Soc 101 — Introduction to Sociology OR		_	_
Relationships	3	0	3
HD 105 — Basic Pocesses of Interpersonal	_	_	

^{*}Suggested electives for 1st year — HD 106, SS 132, Bus. 173, Bio. 116, Hum. 101, Spe. 105, PEH 110, PEH 257, PEH 101, DM 090, DM 091, RD 101, Spa. 101.

HUMAN SERVICES (continued) Social Worker Assistant (Associate Degree of Applied Arts and Sciences)

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Curriculum Pattern

Second Year

Semester III		Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Soc. 204 — American Minorities		3	0	3
Soc. 206 — Introduction to Social Work		3	Ô	
HD 107 — Developing Leadership Behavior			•	3
HS 240 — Field Work		3	0	3
HS 241 — Field Work Seminar	,	0	10	2
		2	0	2
*Elective		3	0	3
		_	-	_
		14	10	16
Semester IV				
Soc. 203 — Marriage and Family		3	0	3
Gvt. 231 — Municipal and County		J	U	3
Government OR				
Gvt. 201 — American Government		3	0	2
HS 231 — Procedures in Social Work		_	•	3
HS 242 — Field Work		3	0	3
		0	10	2
HS 243 — Field Work Seminar		2	0	3
*Elective		3	0	3
•		 14	-	<u> </u>

^{*}Suggested electives for 2nd year Social Worker Option-PEH 101, CD 136, Psy. 205, Psy. 207, HS 233, Ant. 101, Bio. 290, Soc. 231, Soc. 205, Rec. 132, Rec. 231, Rec. 235, Spa. 101. (Certain suggested electives are not offered on the Mountain View Campus.)

HUMAN SERVICES

(continued)

Mental Health Assistant Option

(Associate Degree of Applied Arts and Sciences)

Curriculum Pattern

Second Year

	Lec. Hrs.		Credit Hrs.
Semester III Soc. 204 — American Minorities	3	0	3
HD 107 — Developing Leadership Behavior	3	0	3
HS 235 — Introduction to Mental Health	3	Ō	3
HS 240 — Field Work	Ō	10	2
HS 241 — Field Work Seminar	2	0	2
*Elective	3	0	3
Liceure	_	_	
	14	10	16
Semester IV	_		
Soc. 203 — Marriage and Family	3	0	3
Psv. 205 — Psychology of Personality	3	0	3
HS 233 — Counseling for the Paraprofessional	3	0	3 2
HS 242 — Field Work	0	10	2
HS 243—Field Work Seminar	2	0	2
*Elective	3	0	3
	_	_	
	14	10	16

^{*}Suggested electives for 2nd year Mental Health Option, PEH 101, Psy. 203, Psy. 207, Soc. 205, Spe. 105, CD 136, Gvt. 231 or Gvt. 201, Ant. 101, Rec. 132, Rec. 231, Rec. 235, Spa. 101. (Certain suggested electives are not offered on the Mountain View Campus.)

MACHINE SHOP (Associate Degree of Applied Arts and Sciences)

The 2-year 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 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.

Fall Semester	Lec. Hrs.		Credit Hrs.
MS 133 — Basic Lathe	4	0	_
MS 134 — Basic Milling Machine	1 1	8 8	5
DM 091 — Elementary Algebra	3		5
Bpr 177 — Blueprint Reading	3 1	0	3 2 2
Egr 186 — Manufacturing Processes	1	3 2	2
25. 100 — Mandiacturing Processes	ı	2	2
	7	21	17
Spring Semester			
MS 135 — Intermediate Lathe	1	8	5
MS 136 — Intermediate Milling Machine	1	8	
Mth 139 — Applied Mathematics	3	Õ	3
Com 131 — Applied Composition and Speech	3	Õ	5 3 3
Bpr 178 — Blueprint Reading	1	3	2
	<u> </u>	_	_
	9	19	18
Fall Semester			
MS 233 — Advanced Lathe	1	8	5
MS 234 — Advanced Milling Machine	1	8	5
Phy 131 — Applied Physics	3	3	4
SS 131 — American Civilization	3	0	3
		_	_
	8	19	17
Spring Semester			
MS 235 — Applied Lathe	1	8	_
MS 236 — Applied Milling Machine	i	8	5 5
Phy 132 — Applied Physics	3	3	4
Psy 131 — Human Relations	3	0	3
,	_	_	_
	8	19	<u> </u>

MID-MANAGEMENT (Associate Degree of Applied Arts and Sciences)

This program in business management is designed to develop the fundametal skills, knowledge, attitudes, and experiences which enable men and women to function in decision-making positions as supervisors or junior executives.

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester Bus 136 — Priniciples of Management Bus 150 — Management Training	3 0	0 20	3 4
Bus 154 — Management Seminar—Role of Supervision	2	0	2
Com 131 — Applied Comp. & Speech OR Eng 101 — Composition and Expository Reading Hum 101 — Introduction to Humanities	3	0	3 3
	11	20	15
Spring Semester Bus 105 — Introduction to Business Bus 151 — Management Training	3 0	0 20	3 4
Bus 155 — Management Seminar—Personnel Management	2	0	2
Comp 132 — Applied Comp. & Speech OR Eng 102 — Composition & Literature *Elective	3	0	3
	11	20	15
Fall Semester Bus 201 — Priniciples of Accounting OR Bus 131 — Bookkeeping Bus 250 — Management Training Bus 254 — Management Seminar—Organizational Development SS 131 — American Civilization OR Hst 101 — History of the United States *Elective	3 0 2 3 3 	0 20 0 0 0 	3 4 2 3 3

Spring Semester Bus 251 — Management Training Bus 255 — Management Seminar—Business Strategy, the Decision Process and	0	20	4
Problem Solving	2	0	2
Eco 201 — Principles of Economics	3	0	3
SS 132 — American Civilization OR			
Hst 102 — History of the United States	3	0	3
*Elective	3	0	3
	·	<u> </u>	— 15

^{*}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.

		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	2 3 2
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
Second 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	Õ	3
FIECUAC	•	U	J
	13	_ 2	14
	IJ	4	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.

	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	Ŏ	3
Bus 164 — Intermediate Shorthand	2	3	3
Bus 174 — Intermediate Typing	1	2	2
Bus 231 — Business Correspondence	3.	Õ	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.

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester Bus 105 — Introduction to Business	3	0	3
Bus 131 — Bookkeeping	3	Ŏ	3
Bus 161 — Office Machines			_
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
·	_	_	<u> </u>
	13	7	16
Spring Semester			
Bus 160 — Machine Transcription	3	0	3
Bus 162 — Secretarial Training	3 2	0 3	3
Bus 164 — Intermediate Shorthand Bus 231 — Business Correspondence	3	0	ა ვ
Bus 273 — Advanced Typing	1	2	3 3 2
243 275 (totalises 1) ping	_	_	
	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	3	0	3
Hst 101 — History of the United States **Elective	3	Õ	3
LIECUVE		_	_
	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 3 SS 132 — American Civilization OR **Hst 102** — History of the United States 3 3 **Elective 3 0 3 14 3

TEACHER AIDES Associate Degree of Applied Arts and Sciences

This program is designed to prepare aides to teachers in a wide range of supportive duties common to educational processes. Special courses will prepare students in the use of instructional media and enhance their understanding of learning processes and stages of development.

Curriculum Pattern

FIRST YEAR

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester			
RD 101 — Advanced Reading OR			
SPE 105 — Fundamentals of Public Speaking	3	0	3
DW 090 — Developmental Writing OR		_	_
COM 131 — Applied Composition and Speech Ol	₹		
ENG 101 — Composition and Expository Reading	3	0	3
TA 131 — Teacher Aids Techniques I	3	Ŏ	3
BUS 173 — Beginning Typing OR	•	•	•
BUS 174 — Intermediate Typing	1	2	2
HD 105 — Basic Processes of	•	~	_
Interpersonal Relationships	3	Λ	3
DM 090 — Pre-Algebra Mathematics	3	Õ	3
Dividuo — Tre-Algebra Mathematics	3	U	3
	_	_	_
	16	2	17

^{*}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.

Spring Semester			
TA 129 — Communication Skills for Teacher Aides	3	0	3
BUS 174 — Intermediate Typing or elective	1	2	2
TA 133 — Teacher Aide Techniques II	3	0	3
*LT 132 - Introduction to Media	1	4	3
TA 135 — Arts and Crafts for Teacher Aides	3	0	3
	11	6	14
SECOND YEAR			
Fall Semester			
COMMUNICATIONS OR ENGLISH	3	0	3
BUS 161 — Office Machines	1	2	2
TA 231 — Teacher Aide Seminar I	2	0	2
TA 232 — Teacher Aide Practicum I	0	20	4
PSY 105 — Introduction to Psychology	3	0	3
Soc 101 — Introduction to Sociology	3	0	3
	_		
	12	22	17
Spring Semester **COM 132 — Applied Composition and Speech OR			
Eng 102 — Composition and Literature	3	0	3
TA 235 — Teacher Aide Seminar II	2	0	2
TA 236 — Teacher Aide Practicum II	0	20	4
PSY 201 — Human Growth and Development	3	0	3 3
SOC 231 — Urban Social Problems	3	0	3
PEH 101 — Fundamentals of Health	3	0	3
	14	20	18

Recommended Electives:

HUM 101 PEH 257 PHI 101 **SPE 105** HE 107

^{*}Available on the El Centro Campus.

**If COM 132 or ENG 102 was taken previously, an elective may be chosen.

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 in a two year period. 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.

All flight training and ground school instruction conforms to Vol. 10,

part 61 and 141 of the Federal Aviation Regulations.

Fall Semester	Lec. Hrs.	Lab. Hrs.	Sem. Flt. Hrs.	Credit Hrs.
Plt 130 — Ground School Private	2	0	0	2
Plt 133 — Flight Basic I	0	ŏ	10	2 1
Plt 135 — Flight Basic II	Ŏ	ő	12	i
AA 131 — Introduction to Aviation	3	ő	0	3
Com 131 — Applied Composition	3	U	U	3
and Speech	3	0	0	3
Mth 195 — Technical Mathematics PT 235 — Fundamentals of	3	0	0	3
Electricity PE 115 — Physical Performance	2	3	0	3
Activities	0	3	0	1
	13	6	22	17
Spring Semester				
Plt 132 — Flight Private Pilot	0	0	18	1
Plt 136 — Aero Engines and Systems	3	0	Ô	3
AA 134 — Aviation Law	3	0	0	_
Com 132 — Applied Composition and Speech	^	_		_
	3	0	0	3
Mth 196 — Technical Mathematics	3	0	0	3 3
Bus 105 — Introduction to Business	3	0	0	3
	15	0	18	16
Summer Semester				
Plt 231 — Flight Commercial II	0	0	30	2

PILOT TECHNOLOGY (Associate Degree of Applied Arts and Sciences

		Lab.	Sem. Fit.	Credit
	Lec. Hrs.	Hrs.	Hrs.	Hrs.
Fall Semester	3	0	0	3
Pit 232 — Ground School Commerical	3 0	0	46	3
Plt 233 — Flight Commercial II Av 130 — Introduction to	v	•		•
Avionics Systems	3	0	0	3
Bus 136 — Principles of Management	3	Ō	0	3 3 3
SS 131 — American Civilization	3	Ō	0	3
PE 115 — Physical Performance	-			
Activities	0	3	0	1
,	_	_	_	_
	12	3	46	16
Spring Semester				
Plt 234 — Flight Commercial III	0	0	46	3
Plt 237 — Meteorology	3	0	0	3 3 3 3
Plt 236 — Aero Physics	3 3 3	0	0	3
AA 239 — Airport Management	3	0	0	ა ე
SS 132 — American Civilization	3	0	0	<u> </u>
	12	0	46	15
Options				
Instrument Rat	ing			
Second Summer Semester				
Plt 240 — Ground School Instrument	2	0	0	2
Plt 241 — Flight Instrument	0	0	30	2
	_	_		_
	2	0	30	4

May be taken first summer by students desiring to acquire only Private Pilot Certificate with Instrument Rating.

Flight Instructor Rating

Third Fall Semester				
Plt 242 — Ground School Flight Instructor	2	0	0 30	2
Plt 243 — Flight Instructor	-	-	-	_
	<u>_</u>	0	30	4

May be taken second summer by students with Commercial Pilot Certificate desiring Flight Instructor rather than Instrument Rating.

PLASTICS MANAGEMENT AND TECHNOLOGY (Associate Degree of Applied Arts and Sciences)

This 2-year program is designed to provide the student with the fundamental skills and knowledge of both management techniques and the plastics industry which will enable him to function in decision-making positions as a supervisor or junior executive and as a competent plastics technologist.

Fall Semester	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
PT 131 — Introduction to Plastics	3	3	4
PT 133 — Extrusion Molding	3	3	4
Bpr 177 — Blueprint Reading	1	3	2
Mth 195 — Technical Mathematics	3	Ō	3
Bus 105 — Introduction to Business	3	0	3
	13	9	16
Spring Semester			
PT 134 — Thermo-Forming	3	3	4
PT 136 — Injection Molding	3	3	4
Egr 186 — Manufacturing Processes	1	2	2
PT 138 — Plastic Finishing	3	3	4
Bus 131 — Bookkeeping OR	_	_	_
Bus 201 — Principles of Accounting	3	0	3
	<u> </u>	_	
•	13	11	17
Fall Semester			
PT 135 — Properties of Materials	3	3	4
PT 233 — Testing and Quality Control	3	3	4
Com 131 — Applied Composition and Speech	3	0	3
Bus 136 — Principles of Management	3	ő	3
*Elective	3	ŏ	3
	_	_	_
	15	6	17
SpringSemester			
PT 232 — Plastic Fabrication Manufacture PT 234 — Production Planning and Process	3	3	4
Control	3	0	3
Com 132 — Applied Composition and Speech	3	Ō	
SS 131 — American Civilization	3	Ô	3 3 3
Bus 171 —Introduction to Supervision	3	0	3
	 15	3	<u> </u>

^{*}Suggested Electives: Bus 230, Bus 233, Bus 234, CS 175, Bus 202, Eco 201.

PLASTICS TECHNOLOGY (Associate Degree of Applied Arts and Sciences)

This program is designed to give the student a working knowledge of plastic materials, processing methods, fabrication, finishing and decorating of plastic materials, and to function in decision-making positions in the plastics industry.

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester PT 131 — Introduction to Plastics PT 133 — Extrusion Molding Bpr 177 — Blueprint Reading Mth 131 — Technical Mathematics Com 131 — Applied Composition and Speech	3 3 1 3 3	3 3 0 0	4 4 2 3 3 —
Spring Semester PT 134 — Thermo-Forming PT 136 — Injection Molding PT 138 — Plastic Finishing Egr 186 — Manufacturing Processes SS 131 — American Civilization	13 3 3 1 3 —	3 3 3 2 0	4 4 4 2 3 —
Fall Semester PT 135 — Properties of Materials PT 233 — Testing and Quality Control PT 235 — Fundamentals of Electricity PT 236 — Hydraulics and Pneumatics	3 3 2 -	3 3 3 -	4 4 4 3 —
Spring Semester PT 231 — Thermo-Plastic Process Equipment Maintenance PT 232 — Plastic Fabrication Manufacture PT 234 — Production Planning and Process Control Com 132 — Applied Composition and Speech Psy 131 — Human Relations	3 3 3 3 —	3 3 0 0 0 0	4 4 3 3 3 - 17

INDUSTRIAL WELDING (One-Year Certificate Program)

The student will learn the basic fundamentals of oxyacetylene welding, cutting and arc welding, with primary emphasis placed on arc welding and the use of various electrodes. Typical operations such as butt, lap, and fillet welding are performed. TIG and MIG processes also will be introduced.

Fall Comments	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester			
WE 133 — Introductory Welding	1	8	4
WE 134 — Basic Welding Applications	1	8	4
*Mathematics	3	0	3
*Communications	3	0	3
Bpr 177 — Blueprint Reading	1	3	2
	_	_	_
	9	19	16
Spring Semester			
WE 135 — Quality Control in Welding	1	8	4
WE 136 — Special Welding Applications	1	8	4
*Mathematics	3	Õ	3
Egr 186 —Manufacturing Process	1	2	2
WE 130 — Pattern Layout	2	3	3
The second and out	_	3	3
	_		_
	8	21	16

^{*}Students will be placed according to their ability in this area.

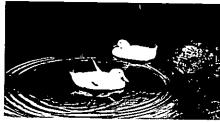


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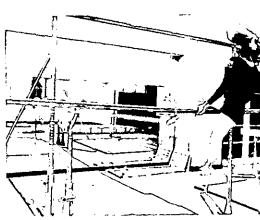
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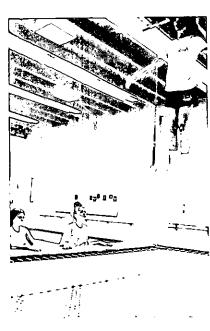
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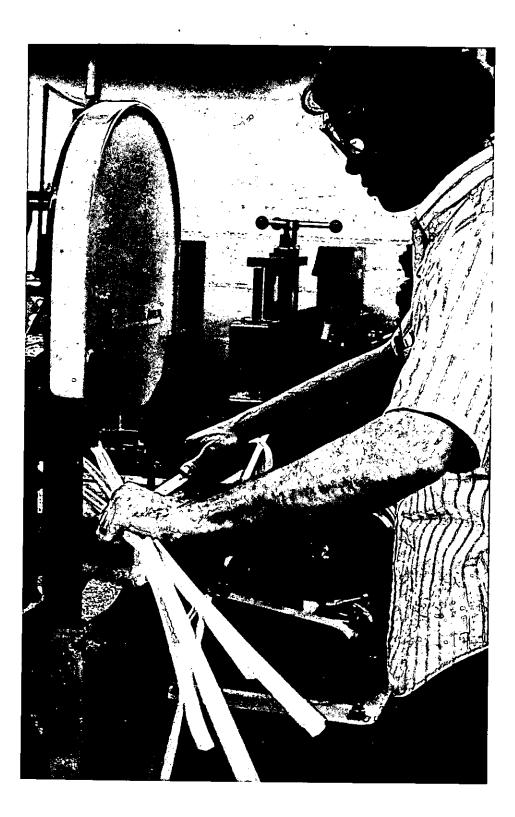
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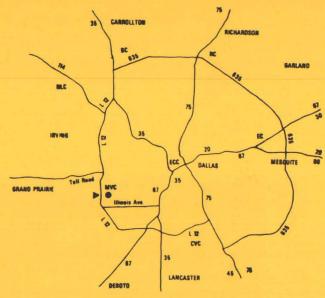


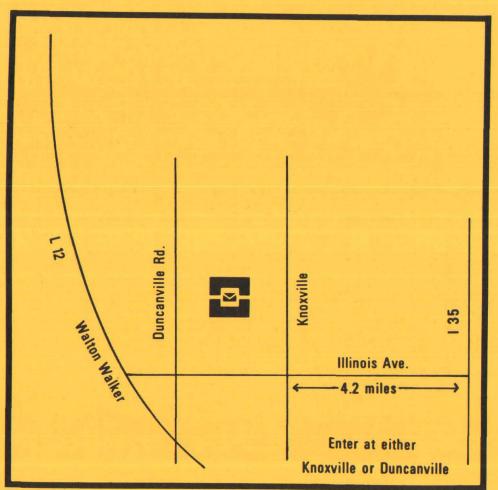












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