

ALVIN JUNIOR
COLLEGE

J B

1971 - 1972



ALVIN JUNIOR COLLEGE

ALVIN, TEXAS

"WHERE EXCELLENCE IS A TRADITION"

Approved and Accredited by

The Texas Education Agency
Coordinating Board—Texas College and University System
The Association of Texas Colleges and Universities
Southern Association of Colleges and Schools

Member of

American Association of Junior Colleges
Southern Association of Junior Colleges
Texas Junior College Association
Texas Public Junior College Association
Association of Texas Colleges and Universities
National Commission on Accrediting

Vol. XXIII

1971 - 1972

No. 1

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I. ALVIN JUNIOR COLLEGE CALENDAR

1971 - 72

Last Day for New Students to Apply for Admission for Fall Term	August 18
End of Session	August 18
1971 FALL SEMESTER	
Faculty Reports	August 23
Freshman Orientation	August 24
Registration	August 25, 26, 27
Classes Begin	August 30
Last Date to Register	September 2
Labor Day Holiday	September 6
Thanksgiving Holidays	November 25, 26
Final Exams Begin	December 14
Close of Fall Semester	December 21
Last Day for New Students to Apply for Admission to Spring Semester	January 3
1972 SPRING SEMESTER	
Registration	January 12, 13, 14
Classes Begin	January 17
Last Day to Register	January 20
Easter Holidays	March 30 - April 3
Final Exams Begin	May 4
Commencement	May 12
Close of Spring Term	May 12
Last Day for New Students to Apply for Admission to First Summer Session	May 22
1972 SUMMER SCHOOL	
First Summer Session	
Registration	June 5, 6
Classes Begin	June 7
Last Day for New Students to Apply for Second Summer Session	July 2
Holidays (Classes meet on Wednesday, July 5)	July 3 & 4
Final Exams	July 12
End of Session	July 12
Second Summer Session	
Registration	July 14
Classes Begin	July 17
Final Exams	August 22
End of Session	August 22
Last Day for New Students to Apply for Admission for Fall Term	August 22
1972 FALL SEMESTER	
Registration	Aug. 30, 31, Sept. 1
Classes Begin	September 5

II. ORGANIZATION OF THE COLLEGE

Board of Trustees

Dr. J. C. DeWitt	President
Mr. Jack R. Beaver	Vice President
Dr. Beryl W. Cline	Secretary
Mr. Riley A. Godwin	Mr. Larry Holdorff
Mr. Carroll Kelly	Mr. Scott Thrash

Officers of Administration

Dr. Thomas V. Jenkins	President
B.S., Sam Houston State University	
M.A., Sam Houston State University	
Phd., University of Texas at Austin	
Mr. E. G. Marburger	Dean of the College
B.S., Southwest Texas State University	
M. Ed., University of Texas	
Mr. W. H. Meyers	Dean of the College, Emeritus
B.S., The Texas Agricultural & Mechanical University	
M.S., The Texas Agricultural & Mechanical University	
Mr. Neal M. Nelson	Dean of Admissions and Registrar
B.A., University of Washington	
M.A., University of Idaho	
M.Ed., University of Houston	
Mr. M. B. Johnstone	Director of Evening School
B.S., Stephen F. Austin State University	
M.Ed., University of Houston	
M.L., University of Houston	
Mr. Robert N. Townsend	Director of Technical - Vocational Education
B.E.E., University of Florida	
Graduate Study, University of Houston	
Mr. Bill Henry	Director of Student Financial Aids and Placement
B.S., Howard Payne College	
M. Ed., University of Texas	
Mr. William N. Whitlow	Director of Guidance and Student Activities
B.S.E., Arkansas State University	
M. Ed., Stephen F. Austin State University	

FACULTY

- *Mr. Rodney Allbright Law Enforcement and Police Administration
A.A., Navarro Junior College
B.S., Sam Houston State University
M.A., Sam Houston State University
- Mr. Charles Bennett Mathematics
B.S., Sam Houston State University
M.A., Sam Houston State University
- *Mrs. Jo Bennett Speech - English
B.A., Southwest Texas State University
M.S., Southwest Texas State University
- *Miss Charles B. Benson English
B.A., University of Colorado
M.A., Southwest Texas State University
- *Mr. Raymond G. Bethke Music, Choral Director
B.M. Ed., Sam Houston State University
M.Ed., Sam Houston State University
- Mr. William R. Bitner Science
B.S., Sam Houston State University
M.A., Sam Houston State University
- Mr. Thomas L. Bryan Social Science
B.A., Arkansas Polytechnic College
M.A., University of Arkansas
- *Mr. Jose G. Castillo, Jr. Spanish - History
B.A., University of Texas
- Mr. Donald Childs Physical Education and Coach
B.S., Southwest Texas State College
M. Ed., Southwest Texas State College
- Mrs. Mary Anne Claflin English
B.A., North Texas State University
M.A., University of Texas
- Miss Cleo Congrady English
B.A., University of Houston
M.A., University of Houston
- *Mrs. Arlyne Daly Business Education
B.A., Texas Woman's University
M.S., Texas Woman's University
- Mr. Arthur G. Daniel Social Science
B.A., University of Texas
M.Ed., University of Texas
M.A., North Texas State University

- Mr. Cameron Bennett Douthitt Mathematics
B.S., University of Houston
M.A., Sam Houston State University
- Mrs. Helen Gaevert Nursing
B.S.N., College of St. Teresa
M.N., University of Washington
- *Mr. James Gebert Industrial Arts
B.S., Southwest Texas State Teachers College
M.E., University of Houston
- Mr. Clemence R. Graef Science
B.S., Southwest Texas State University
M.S., Southwest Texas State University
- Mrs. Ruth Hebert Nursing
B.S., Nursing Praire View A & M College
M.P.H., University of Texas
- Mrs. Dorothy L. Hitt Business Education
B.B.A., Sam Houston State University
M.Ed., Sam Houston State University
- *Mr. Orbry D. Holden Computer Science
B.S., University of Texas at Austin
M.Ed., University of Texas at Austin
- *Mr. John M. Holst Science
B.S., Sam Houston State University
M.A., Sam Houston State University
- Miss Helen A. Horton Piano, Organ, Harp
B.M., Northwestern University
M.M., Northwestern University
- Mrs. Patsy M. Klopp English
B.A., Southwest Texas State University
M.A., Southwest Texas State University
- Mr. Donald G. Leatherman Computer Science
B.S., Arlington State College
M.C.S., Texas A & M University
- Mr. Marvin James Longshore Social Science
B.S., Texas A and I University
M.S., Texas A and I University
- Mr. Richard H. Marshall Social Science
B.A., East Texas State University
M.A., Texas Technological College
- **Mr. Glen McGraw Social Science, Business Education
B.S., Arkansas State Teachers College
M.B.A., University of Arkansas

- Mr. James S. Meadows Mathematics
 B.S., East Texas State University
 M.A., University of Illinois
- Miss Florence J. Murphy Nursing
 B.S., Administration of Nursing Service, New York University
 B.S., Administration of Nursing Education, New York University
 M.A., Administration of Nursing Service, Teacher's College
 Columbia University
- Mr. Frances Joseph Phillips Science
 B.S., Sam Houston State University
 M.S., Texas Technological College
- Mr. Gerald Glen Pullen Computer Science
 B.S., Texas A and M University
 B.S., University of Houston
 M.Ed., Sam Houston State University
- Miss Pearl Marie Rinderknecht Business Education
 B.B.A., University of Texas
 M.Ed., University of Houston
- Mrs. Virginia Sheffel Psychology
 B.A., Hillsdale College
 M.Ed., Wayne State University
- *Mrs. Cherry Simpson Art
 B.A., North Texas State University
 M.A., North Texas State University
- Mr. Gerald D. Skidmore Mathematics
 B.S., Sam Houston State University
 M.A., Sam Houston State University
- Miss Evelyne Strickland Librarian
 B.A., Texas Woman's University
 B.S. L.S., Texas Woman's University
 M.A., Texas Woman's University
- Mrs. Marilyn Withrow Nursing
 B.S., Ohio State University
- Miss Mary Wyllie English
 B.A., University of Houston
 M.A., Southern Methodist University
- Mrs. Susan Zacharias Nursing
 B.S., Boston University

* Department Head
 ** On leave of absence

III. GENERAL INFORMATION

A. HISTORY

Alvin Junior College was established in three stages: (a) S.B. 316 was filed in the Office of the Secretary of State on May 28, 1947, and it reflected a steady pressure of public opinion in the Alvin area for permission to have a public college; (b) At the October 4, 1947, meeting of the State Board of Education, the petition for a junior college at Alvin was allowed, subject to the vote of the people; (c) The vote for creation of a junior college district carried on November 2, 1948, by a majority of 743 to 31. Classes were begun on September 12, 1949, in new facilities which grouped grades 11 through 14 in one building and which placed Alvin under a system known as the 6-4-4 plan.

Highlights of the first year: An opening assembly was held on September 12 for students in the Day College. Preceding this, on September 1, 1949, Superintendent A. G. Welch, Dean W. H. Meyers, and Registrar Neal M. Nelson held a dinner and reception for the newly formed Adult Education Advisory Committee organized under the able direction of Miss Louise Kropf, Director of Adult Education. The group was addressed by Dr. C. C. Colvert and Dr. J. W. Reynolds of the University of Texas staff.

Student activities, in addition to athletic and band events, included a special Columbus Day program (the first student-sponsored program at AJC) on October 12 at which time Mr. R. E. (Bob) Smith of Houston of the Good Neighbor Commission gave the principal address. The adoption of a constitution for the student body was completed on November 15, 1949 and the classes were designated therein as Alpha—eleventh; Beta—twelfth grade; Gamma—thirteenth grade; and Delta—fourteenth grade. These four classes, the faculty, and school administration were hosts on May 5, 1950 to formal dedication ceremonies with the Honorable John Ben Shepherd as the principal speaker. On May 11, the first of seven annual vocations day programs was sponsored by the Pan American Student Forum, assisted by the Rotary Club of Texas City and Galveston. Dr. D. Bailey Calvin was the main speaker for the assembly program which preceded the section meetings. A summer school of eight weeks was held.

Developments from 1950-1968. The most important change which was made in the program of Alvin Junior College was the building of a separate building for class work on the college level and dropping of the 6-4-4 plan in favor of a 6-3-3-2 arrangement. The college program was strengthened by additional facilities, by an enlarged faculty, and by successfully meeting the standards of the Southern Association of Colleges and Secondary Schools.

The administrative direction of the College has been under three able presidents: Mr. A. G. Welch (1949 to 1954), Dr. A. B. Templeton (1954 to 1964), and Mr. D. P. O'Quinn (1964 to 1970). New Board members included: Miss Verna Browning (1953), Mr. A. Guy Crouch (1954), Mr. N. A. Keithley (1955), Mr. Charles Leisure (1954), Mr. Chester Morgan (1955), Mr. Kermit Dyche (1955), Mr. Guy Myrick (1956), Mr. George Duncan (1957), Dr. John McElveen (1957), Mr. Larry Holdorff (1958), Mr. Ralph Young (1958), Mr. Riley A. Godwin (1959), Mr. A. B. Kennedy, Jr. (1960), Mr. Alton Burgess (1961), Mr. J. C. Cox (1963), Mr. Frank Emert (1964), Mr. A. E. Bowen (1965), Mr. O. G. Wellborn (1965), Mr. Jack R. Beaver (1966); Dr. Beryl Cline, Mr. E. L. DeKinder, Mr. Paul Thomas, and Mr. Ben Magness (1967); Dr. J. C. DeWitt (1969); Mr. Scott Thrash (1970); and Mr. Carroll Kelly (1971).

On July 1, 1968, Dean W. H. Meyers retired from the position he had held since the college started in September, 1949. He was succeeded as the dean of the college by Mr. E. G. Marburger who was serving the district as Assistant to D. P. O'Quinn, Superintendent of Schools and President of Alvin Junior College.

Alvin Junior College moved into a new campus at 3110 South Mustang Road for the summer session, 1963. Open House was held under the direction of Dr. A. B. Templeton, President of the College, Dean W. H. Meyers, Registrar Neal M. Nelson, the Board of Education, and the faculty on Sunday, June 16, 1963, when the entire plant was opened for inspection by townspeople and friends. For the first time in its history, Alvin Junior College had a second summer session (July 15 through August 23, 1963).

The facilities of the college and the general education program are constantly being reviewed with a view to making improvements where needed. Enrollments have increased from 134 (1949) to 1709 (1965-66). New and important features added the past few years include: Data Processing Technology, Associate in Science Nursing Program, and Drafting Technology. In the fall, 1965, Alvin Junior College used a new wing finished for the science building and an electronics technology course was started with an enrollment of 20 students. Extension classes began in January, 1965 at the State Department of Corrections' Ramsey Prison at Rosharon, and an extension unit for the Brazosport area began in September, 1965. Police Administration and Choral Music were added in 1967 and in 1968, respectively.

Greek letter fraternities came to AJC in 1963 with the installation of Tau Psi (Pan American College Forum) on April 20 with 101 members. This was followed on May 3 with the installation of a chapter of Phi Theta Kappa (honor society for junior colleges) with a membership of 23.

B. PURPOSES

By action of the Board of Education, Alvin Junior College is an extension of the work of the public schools of this community. As such, it is an integral part of the Alvin Public Schools, furnishing two additional years of work.

Alvin Junior College was set up to fulfill a definite need in this area of Brazoria and Galveston counties. It is aimed to make this college into an institution which is flexible in its make-up and offerings, yet achieving a standard that is sound for an institution in the United States, serving a part of Texas in a manner which will be a credit to the Texas System of Education.

The Southern Association of Colleges and Secondary Schools states, "... schools and colleges should be encouraged to be different rather than to be pressed into set moulds to make them all alike." It is the aim of the administrative staff of Alvin Junior College to organize the college in such a way as to serve the largest number of people of this community and surrounding areas.

GENERAL

To provide post-secondary and/or adult experiences in a varied curriculum for the Alvin Junior College community.

SPECIFIC

- (1) To offer two years of college-transfer programs leading to the baccalaureate degree.
- (2) To provide terminal programs designed to prepare and upgrade students for gainful employment in professional and technical vocational areas.
- (3) To structure a curriculum comprehensive enough to accommodate students with varied academic backgrounds.
- (4) To proffer to the community the facilities and resources of the college for educational, cultural, and citizenship activities.
- (5) To incorporate within the curriculum experiences which will result in an awareness of the American heritage, stressing the esthetic, social, and cultural values necessary for the development of a whole individual.

C. AFFILIATIONS

On April 5, 1951, Alvin Junior College was voted full membership in the Association of Texas Colleges on recommendation of the Committee on Standards and Classification, Dr. Alfred H. Nolle, Chairman.

This College was visited on April 22-23, 1959, by a special committee of the Southern Association of Colleges and Secondary Schools composed of Dean John A. Hunter (the chairman) of Louisiana State University and President Homer Ellis Finger of Millsaps College. Following this inspection by the committee, Alvin Junior College was voted full membership in the Southern Association of Colleges and Secondary Schools at the Louisville (Kentucky) meeting on December 2, 1959. With this regional recognition and approval, Alvin Junior College transfers may attend schools in all parts of the United States without loss of credit.

D. REGULATIONS

1. ADMISSION

In order that anyone who will enter Alvin Junior College can profit fully by its program, applicants for admission will be considered individually. In considering the qualifications of the candidate, his ability, interests, and training as well as his total personality will be taken into account. All applications will be reviewed by an admissions committee of the college. All admissions materials should be sent to the Dean of Admissions. Following are the various categories and requirements for admission:

- (a) **High School graduation**—a high school graduate who wishes to be admitted must meet the following requirements:
- (1) Apply on the official application form.
 - (2) Present a satisfactory transcript of credits.
 - (3) Take prescribed tests, if requested to do so by school officials.
 - (4) Appear for personal interview.
 - (5) All students who are entering Alvin Junior College for the first time must provide the college with a statement of health from a licensed physician.

- (b) **Special approval**—an applicant who wishes to be admitted by special approval must meet the following requirements

- (1) Be at least **twenty-one years of age** or a veteran.
- (2) Apply on the official application form.
- (3) Take prescribed tests, on request of college officials.
- (4) Present a health statement.
- (5) Appear for personal interview and comply with special requirements required of each individual applicant.
- (6) **Special Students:** Admission to certain terminal courses on a non-credit basis is granted to students over twenty-one years of age who give evidence of being able to take the courses desired with profit. Admittance of high school students as auditors (non-credit students) into technical program courses or remedial classes will be carried out only if: (1) there is a vacancy in the class, (2) the high school principal approves in writing, and (3) no credit in college is awarded. Credit may be given at the high school level, if requested by the principal.
- (7) A student who is within two units of graduating from an accredited high school may, upon recommendation of the high school principal and individual approval of the Dean of Admissions be permitted to enroll when enrolled concurrently in a senior high school for sufficient courses to graduate at the close of the current session. The class load of such student shall not exceed the equivalent of 16 semester hours, counting each high school course as the equivalent of one three hour course. Students admitted by individual approval are subject to the same policies and regulations as all other students.

- (c) **Admission from other colleges:**

- (1) Make application on official application form.
- (2) Present a separate and official transcript from each college attended.
- (3) Appear for personal interview.
- (4) Furnish proof of eligibility for re-admission to the college last attended with a statement of honorable dismissal.
- (5) Students who have accumulated more than 66 semester hours will be made eligible for admission to the college only upon recommendation of Admissions Committee.
- (6) Furnish health statement.

- (d) **Additional Requirements:**

- (1) Required High School courses.

For full admission to the College sixteen units of high school credits are required, eight being prescribed and eight being elective. The prescribed units are as follows:

- a. English—3
- b. From the Mathematics Group in Section A—2
- c. From the Social Science Group in Section B—2
- d. Natural Science—1
- e. Foreign language in A—2 Units recommended but not a specific requirement.
- f. Additional from Section A or B, or A and B together - 8.

Section A

English Group		Mathematics Group	
English	3-4	Algebra	1-1½-2
Foreign Language Group		Plane Geometry	1
French	1-2-3	Solid Geometry	½
Spanish	1-2-3	Trigonometry	½
German	2-3	General Mathematics	1
Greek	2-3		
Latin	2-3-4		

Section B

Natural Science Group		Social Science Group	
Biology	1	Early European History	1
Botany	1	Modern European History	1
Chemistry	1	World History	1
General Science	1	American History	½-1
Physics	1	Texas History	½
Physiography	½	Civics	½-1
Zoology	1	Economics	½

All other courses accredited by the Texas Education Agency.

(2) College of Engineering

The unit requirements for admission to the college of engineering are: English—3 units; Algebra—2 units; Plane Geometry and Trigonometry—1½ units; Physics—1 unit; from Section A above—5½ units; and additional from Section B—3 units, making a total of at least 16 units.

(3) Freshman Testing and Counseling

The American College Test (ACT) will be required of all students registering for 9 or more semester hours at Alvin Junior College. This test is not used as a selective device for college admission, but will be used for counseling, research, and follow-up programs. (A CEEB SAT score may be substituted for the ACT with permission of the Dean of Admissions.)

(4) Removal of Deficiencies

Alvin Junior College allows a student, admitted conditionally, to remove entrance deficiencies by taking at least thirty semester hours of college work (grade average of "C") provided the thirty semester hours include six hours each of the following transferable courses: English, Social Science, Mathematics, and Foreign Language.

(e) Advanced Standing:

Alvin Junior College awards credit in some subjects to academically qualified students based on scores made on the CEEB AP, CEEB Ach, CLEP or locally devised examinations. Up to 15 semester hours may be earned by examination in certain courses.

Students interested in advanced placement with credit should contact the Director of Guidance to determine whether tests are available for particular subjects and which tests will be accepted. This may be accomplished as a high school senior or as a student in attendance at Alvin Junior College.

A fee of \$4.00 per semester hour is normally charged for either the nationally administered CEEB tests or the local examinations.

A student must be accepted for admission by AJC before advanced placement will be approved. Credit will be awarded and placed on the student's academic record only after an equal number of semester hours are successfully completed on the AJC campus. No grades will be awarded for advanced placement.

Advancement placement will not be awarded for a course in which the student has been enrolled or for which a previous advanced placement test has been taken.

College Admissions Committee

This committee reviews admissions to the College.

College Academic Committee

This committee reviews and rules on standards as applied to the college program.

2. REGISTRATION PROCEDURE

Steps to Registration

1. Application for Admission or Application for Re-Entry.

Alvin Junior College requires that each student apply for admission or re-entry prior to the beginning of each semester or summer session. Please note the deadlines for these applications on the calendar page in the front of the catalog.

2. **Personal Interview.**

When an application for a new student has been received in the office, the student will receive a notice to appear for a personal interview at some convenient time. At this interview, the student will receive advisement and make a selection of courses for the next term.

3. **Registration Materials.**

A. Students entering Alvin Junior College for the first time must furnish the following items:

- 1) High School Graduate:
 - a. Transcript from high school.
 - b. ACT scores (Required if student registers for 9 or semester hours.)
 - c. A statement of health signed by a licensed physician.
- 2) College Transfer:
 - a. Transcript from the last school attended.
 - b. A statement of health signed by a licensed physician.
 - c. ACT scores.

B. Students re-entering Alvin Junior College must furnish the following items:

- 1) Application for re-entry.
- 2) Transcript from the last school attended if other than Alvin Junior College.

4. **Permit to Register.**

A permit to register is issued to a student after he has satisfactorily fulfilled the above requirements.

A student may not register before the date and time on the permit to register.

5. **Registration.**

A student will report to the Alvin Junior College campus to register on the appointed date and time on his permit to register. At this time, he will be assigned to classes. Tuition and fees are payable at this time.

3. ADDING AND DROPPING COURSES

After the first registration for the session, a student may add, drop, or substitute a course **only with the approval of the Registrar**. Adding of courses which result in registration for a total of more than 18 hours per semester must be approved by the **Dean of the College**. On recommendation of the instructor concerned, a student may at any time be required to drop a course for failure to meet attendance requirements. (See page 18.)

a. WITHDRAWAL FROM COURSES

1. Official drops are handled by the registrar and students are required to request a formal withdrawal before leaving the college. A student who leaves without officially dropping through the office will receive a final grade of "F".

A student may not drop a class after the fifteenth week.

2. Students who withdraw before the end of the **sixth week** of classes during the regular session or the **third week** of classes of a summer term will receive a grade of "W."

3. Students who withdraw after the sixth week of the regular session or after the third week of a summer term will receive a grade of WP (withdraw passing), if passing in the course at the time of withdrawal; they will receive a grade of "WF" if failing at the time of withdrawal.

4. Students who withdraw after the fifteenth week of the regular session, except for military service or serious illness of the student, will receive a grade of "F" if failing in the course. A student drafted into the military service **after the 14th week** may receive full credit, on the recommendation of the Dean of the College, if he is passing in such courses at the time of departure.

5. A student who becomes ill after the fifteenth week of the semester and who cannot finish his work on time may receive a grade of "K" if, in the opinion of the class instructor, he can make up the work later. (See below.)

6. A student may change to an "Audit" status from a credit class only during the first three weeks of the regular session. He must attend regularly while enrolled as an auditor.

b. Making up a "K" rating

1. A rating of "K" is given to allow a worthy student to make up some portion of his assignments at a later date.

2. A "K" grade must be made up by the end of the next session or summer term.

4. NUMBER OF HOURS — STUDENT LOAD

A semester-hour represents the work accomplished by a class meeting one hour a week for one semester. Hence, a class meeting three times a week counts three semester hours.

See p. 20

State for Vets 12 hrs.

Contradiction #10 "Classification of students"

A full-time student should register for five college courses, or fifteen to eighteen class hours per week. Registration should be approved by Registrar.

The standard college load is fifteen semester hours of work. Students who take more than eighteen hours of work for credit must secure permission from the Dean of The College.

An over-load is granted only in case of proven scholarship.

5. ATTENDANCE REQUIREMENTS

Regular and punctual attendance is expected of all students. Each instructor keeps an accurate record of attendance, and he may effect the withdrawal of a student from a class by informing the Registrar of excessive avoidable absences. The resulting grade will be F.

All responsibility for work not completed because of serious illness or school business is the student's. Immediately upon return, he must present to the instructor sufficient reason for his absence and must comply with the regulations of the instructor on possible make-up material.

Absence from a final examination will have the same effect as failure unless excused by the Dean.

When a student misses a final examination, he should make a written request to the Dean for a postponed exam. A \$2 fee is charged for each late examination.

6. STUDENT RESPONSIBILITY

It is assumed that students who reach college level should also have reached a state of maturity which will allow them to be treated as adults. It is further assumed that students at Alvin Junior College will demonstrate a willingness as well as an ability to determine and maintain acceptable standards of dress and grooming, and thereby create an image of respect for the serious purpose of learning and intellectual activity.

It is the belief of the college that the reputation of the institution as well as the atmosphere of learning must be protected for the good of all students; therefore, any appearance or conduct which is so extreme that it constitutes a threat to the overall student body or in any way disturbs, degrades, or disrupts the basic function of learning, or invades the basic rights of other students to be secure and to be let alone in the pursuit of their studies, such appearance and conduct, as a matter of principle, will be opposed and steps taken to prevent it.

7. GRADES AND REPORTS

Grades: Alvin Junior College rates a student by work done in class, counting three-fourths, and a final examination, counting one-fourth, of the final grade. Four letters are used for passing work: A (excellent), B (good), C (fair), and D (low pass). A "K" indicates an incomplete and an "F" is a failure. A grade of D is not recommended for transfer of credit to a senior college. A (92-100); B (84-91); C (76-83); D (70-75); F (below 70 failing).

Reports: Grade cards are issued each nine weeks to the student at the Office of the Dean of Admissions and Registrar. Parents may request that grades be sent to the home of minors. The college will mail grades to high schools upon request.

When the work of a student is reported incomplete or when the grade is withheld, a grade of "K" is reported by the Registrar.

Students are informed that when a grade of "K" is recorded for a nine weeks' period, it must be made up under the direction of the faculty member during the following nine weeks. If it is given for a semester grade, it must be made up before the end of the next semester. Failure to do so will result in the "K" being changed to an "F".

Once a passing grade is made in a course by a student, the grade cannot be raised without re-registration and repeating the course work. Absence from a final examination will have the same effect as failure.

8. GRADE POINTS

A student will be expected to maintain a 2.0 grade point average over a period of semesters. In arriving at the average grade point the following chart is used:

- A grade of "A" equals 4 grade points per semester hour.
- A grade of "B" equals 3 grade points per semester hour.
- A grade of "C" equals 2 grade points per semester hour.
- A grade of "D" equals 1 grade point per semester hour.

No grade points are given for a grade of "F", "W", "WP", "WF", or "K".

Grades of "W", "K", or "WP" are not counted in hours attempted.

9. STUDENT ORGANIZATIONS

Student organizations play an important role on the campus of Alvin Junior College. Currently, these organizations are: The Press Club, the Pan American College Forum, the Speech Club (Bards), Phi Theta Kappa, Texas Student Education Association, Baptist Student Union, the Newman Association, the Young Republicans, the Young Democrats, and the student body elected Student Government Association.

Provisions have been made to allow groups of students with areas of common interest to form clubs and participate in campus activities. Student activities are coordinated through the office of the Director of Student Activities.

Wordy [Due to the fact that ^{Because} the Alvin Junior College is a commuter campus, an activity period at 10:00 a.m. on Mondays, Wednesdays and Fridays has been provided for student meetings, programs and activities.]

10. CLASSIFICATION OF STUDENTS

✓ Full-time students are those who take at least twelve semester hours of college work. Students who take less than twelve semester hours of college work are classified as part-time students.

When a student has earned twenty-four semester hours he is classified as a sophomore.

11. SCHOLASTIC PROBATION

A student taking nine semester hours or more must maintain a 1.5 grade point average. Students who do not meet these scholastic standards are placed on scholastic probation:

A student on scholastic probation for two consecutive semesters is automatically dropped from the rolls although a student with a "D" average may sometimes be given permission by the Dean to remain in college an additional term.

A student will be accepted on scholastic probation from another college only if he reduces his total semester hour load to 12 or 13 hours.

To graduate from A.J.C., a student must maintain an over-all grade average of 2.0.

12. GUIDANCE

Counseling and guidance services for the student are provided through the Guidance Department. Counseling, both academic and personal, is available to all students. Various psychological tests are available for the student seeking help in selecting a major or for vocational counseling.

An over-all course in college orientation is presented by the guidance staff to all entering freshmen. This course includes information on how to study, personal adjustment to college life, vocational and educational group counseling, testing and other topics designed to assist the student in making the most of his college experience.

Academic advisors are assigned for every student. These advisors assist the student in preparing course plans, registration, and in making decisions concerning academic majors and minors.

13. STUDENT GOVERNMENT

Student affairs of Alvin Junior College are managed by a student government association made up of representatives of each of the two classes. Additional members, if authorized, are elected on the basis of the size of each class.

a. Powers, duties, and responsibilities given to the Student Council:

- (1) Recreation activities
- (2) College Activities Calendar
- (3) Student-administration participation
- (4) Assembly participation
- (5) Revision of the Constitution
- (6) School elections
- (7) Student-parent participation
- (8) Special drives
- (9) Interscholastic relationship
- (10) Intramural participation

b. Powers denied the Student Government Association

- (1) Academic rules and procedure
- (2) Interscholastic League and band activities
- (3) Dramatics
- (4) Any social activity which is not given for the whole school

c. College Colors: Red and white

14. FINANCIAL AID

Students in financial need will have an opportunity to apply for and receive financial assistance. The Financial Aid Office assists students in planning and meeting their expenses at Alvin Junior College. Financial assistance in the form of loans, grants, part-time employment, and a few scholarship-loan programs are available to supplement incomes of students in order to meet tuition, fees, and living expenses. These may be summarized as follows:

1. Short Term Loans: Alvin Junior College has limited funds to provide immediate assistance for tuition and fees. These are considered emergency loans and must be repaid during the term of enrollment.

2. Texas Opportunity Plan (T.O.P.): Residents of Texas who qualify may borrow up to \$1,000 per year at 6% interest. Eligibility for federal interest subsidies on T.O.P. loans depends on the amount of student and family income. Repayments must begin four months after the student graduates or is no longer enrolled in an institution of higher education.
3. Hazelwood Act, Connally-Carrillo Act, and Vocational Rehabilitation Grants: Students who were veterans prior to 1955, or students of low income families who were in the top 25% of their class, or handicapped students may qualify for tuition and fee expenses in one of the above programs.
4. Placement: Some work is available on campus and in the community for students interested in working part-time and going to school. Students who intend to work part-time should arrange class schedules with 3 to 4 consecutive free hours for such work.
5. LEEP Grants: Students enrolled in law enforcement and police administration technology programs may apply for LEEP grants. This assistance provides money for tuition and fees for students employed in or planning to enter the law enforcement occupational field.
6. Scholarships: A scholarship of \$100 to apply on tuition for one year or two semesters is awarded each year to the valedictorian of any high school in Texas. This scholarship must be used immediately following graduation. Several scholarships for tuition are awarded by service clubs and other organizations and agencies in the Alvin area to high school graduates. These are made available through the respective high school principals and the money is forwarded to the college for use by the student recipient.
7. Music Scholarships: Music scholarships are available in vocal music to students who audition during the year prior to the school term in which they wish to enroll. Students are encouraged to major or minor in music. However, experienced high school singers (with majors other than music) also will be given full consideration. Interested students should contact the Head of the Music Department.

15. VETERANS ADMINISTRATION BENEFITS

Alvin Junior College offers courses which have been duly approved by the Veterans Administration for the training of veterans under Public Law 89-358 and War Orphans under Public Law 634. Students taking 12 or more semester hours during the regular school year (or 6 hours during a summer term) receive full subsistence benefits. A student may take a full-time load, a three-fourth's load, or a half load and receive monthly benefits if qualified under this Act. Application forms to attend under the program may be secured at the V.A. Headquarters at 515 Rusk Avenue, Houston, Texas 77061. Prospective students should contact the Dean of Admissions and Registrar, who serves as the Veterans Program Officer.

*G.I.
Full load*

16. SOCIAL SECURITY BENEFITS

Students attending under any of the provisions of the Social Security program will have their papers cleared through the Dean of Admissions and Registrar.

17. DEAN'S LIST

The names of students who completed nine or more semester hours with a grade point average of 3.0 with no grade lower than a "C" for the term will be placed on the Deans' List in recognition of scholastic achievement.

18. COLLEGE BOOKSTORE

The Bookstore has been set up to furnish books and supplies to students at reasonable prices. Normally, the bookstore hours are: 9 to 12 in the morning hours (M through F); 1 to 3 PM and 7:30 to 8:30 PM. The bookstore is not open Friday evenings, except during the summer sessions.

The Bookstore will buy back books at announced times at the end of each semester from a published list of approved books.

At the beginning of a semester the bookstore will refund the full price of a book if the student has a change of schedule, encounters an error in ordering, or if the class is discontinued, provided that the student has not marked in his book and has his cash register receipt. This full price refund is for a two week period beginning with the first day of classes. For summer school classes the refund period is for one week from the first day of classes.

19. PARKING REGULATIONS

All students bringing cars on campus are required to register vehicles and affix a parking decal in accordance with regulations issued at time of registration. Students are cautioned that parking regulations will be enforced and that the college reserves the right to impound or have impounded any vehicle which is parked in a manner dangerous to vehicle or pedestrian traffic, or in flagrant violation of college parking regulations. All costs for such vehicle removal shall be borne by the vehicle owner.

20. LIBRARY

The modern and spacious library contains an adequate book collection of over 20,000 volumes, carefully selected by the joint efforts of the faculty and the librarian, meeting the needs of each department and Southern Association standards. Current and back issues of over 95 periodicals aid in reference and research, together with up-to-date vertical files of over 1,000 subjects. There is a growing collection of film strips, records, and tapes for use at listening stations in the library. Copying service is available at a minimum cost.

The library has a three-fold purpose: to provide material needed by students for required research in course work, recreational reading in pursuit of individual interests, and guidance in the understanding and utilization of its resources.

E. NUMBERING OF COURSES

THREE DIGIT SYSTEM

- a. **The first digit** denotes the level of work.
 1. Subjects numbered from 001 to 099 are remedial courses, credit for which will not be granted toward graduation.
 2. Subjects numbered from 100 to 169 are freshman level; subjects which are numbered 170 to 199 are courses usually given on sophomore level which may be taken by freshmen, when permission is granted.
 3. Courses numbered in the 200's are of sophomore level.
- b. **The middle digit** indicates the progression in a subject or departmental offering.
- c. **The third digit** denotes the semester hour value of the course. The letter "A" or "B" attached to a course indicates that the course value is **one-half** (i.e., History 133A carries 1½ hours credit; History 133B carries 1½ hours credit; History 133 carries 3 semester hours of credit). An "R" after the credit value indicates that the course has been repeated and no credit is given in addition to the hours already earned. Other letters, such as J, K, or L, M, N, or O, or S, T, are used to show progression in two courses closely related in content.

HYPHENATED COURSES

Courses which are hyphenated in the catalogue are considered to be one-year subjects, and credit is not given on transfer to another college until the full year's work is completed. Note that the following courses come under this classification: Physics 114-124, and Chemistry 114-124.

F. TUITION AND FEES

For tuition purposes, the students who enroll in Alvin Junior College will be classified as follows:

1. **In-District**—Students who are residents of the Alvin Independent School District. (Resident at least 12 months or eligible to vote in city or county elections).
2. **Out-of-District**—Students whose homes are not in the Alvin Independent School District but who are residents of Texas.
3. **Out-of-State**—Students whose homes are outside the State of Texas.

Pursuant to the authority granted by the Fifty-fifth Legislature in House Bill No. 265 the following Non-Resident regulation applies:

A non-resident student is hereby defined to be a student of less than twenty-one 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 of twenty-one years of age or over 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 married woman's legal residence is that of her husband regardless of her legal residence prior to the day of her marriage.

Tuition:

At the time of publication tuition rates had not been set by the Legislature. A separate publication listing all tuition charges and fees will therefore be published for distribution prior to registration.

Minimum tuition fees for in-district students will not be less than \$4 per semester hour with the total minimum tuition charge for any student not less than \$25.

Fees

All tuition and fees must be paid in full at the time of registration. Students who have received a scholarship are required to pay the full tuition and fees personally if the granting organization has not paid the scholarship at the time of registration. Students needing financial assistance need to make application at the Student Financial Aids Office no later than July 15.

1. GENERAL STUDENT FEES

Activity and Usage Fee for three or more courses	7.50
Activity and Usage Fee for fewer than three courses	3.00
Activity fee for summer term	none
Parking Fee, per semester	1.00

2. MUSIC FEES

PRIVATE LESSONS—PER SEMESTER HOUR\$15.00
 CLASS PIANO—PER COURSE 10.00
 CLASS VOICE—PER COURSE 10.00
 Students taking less than six (6) semester hours of course work, who wish to enroll in applied or private music instruction will be charged as follows:
 ONE HALF-HOUR LESSON A WEEK — \$45 PER SEMESTER
 TWO HALF-HOUR LESSONS A WEEK — \$75 PER SEMESTER

3. Laboratory fees: chemistry, physics, biology, typing, business machines, auto mechanics, drawing, drafting, home economics, machine shop, crafts, foreign languages, woodworking, data processing, electronics, and nursing, \$5.00 per course per semester.

4. Auditors in all courses will pay full tuition and laboratory fees.

5. Late Registraion Fee

A fee of \$5.00 will be charged each student who registers after the regular dates set aside for registration.

6. Graduation Fee

Cap and Gown—diploma fee (graduates) \$7.50. Payable at beginning of last semester before degree is awarded.

7. Late Examination Fee

A fee of \$2.00 will be charged each student who takes a semester examination after the regular exam period is ended.

8. Transcript Fee

A fee of \$1.00 will be collected at registration time from a student who does not have his transcript of credits on file at Alvin Junior College. S.S.—letter of standing will be accepted.
 A fee of \$1.00 per copy is charged for each official Alvin Junior College transcript after the first copy which is furnished free. (Three or more copies of transcript ordered at one time - 50c each). Graduates receive 1 additional free transcript at commencement.

9. Students in Adult Education classes pay the same tuition as day students for college-credit courses.

10. Credit by examination: \$4.00 per semester hour.
 (So designated on transcript).

11. A Permit to Change Schedule: A student who wishes to change his class schedule at his own request after the initial enrollment period at the beginning of a term will pay a \$2.00 per add and/or drop fee with a \$5.00 maximum.

12. Returned Check Fee: Checks returned marked "insufficient funds" or not honored in any way by a commercial bank will be brought promptly to the attention of the student involved and a charge of \$3.00 levied. Checks from students with two or more defaults will no longer be accepted.

Tuition Refunds

Any student withdrawing officially from school will receive refund of his tuition according to the following scale:

	Long Session	Summer Session
First Week	70%	50%
Second Week	50%	None
Third Week	None	None

An immediate refund will not be made; but, upon request, a check covering the refund will be mailed to the address left by the student withdrawing from college.

The activity fee and various laboratory fees are not refundable, unless the class is discontinued by the college.

Summer Tuition and Refunds

1. Tuition—\$10.00 per semester hour.
2. Late Registration fee . . . \$5.00.
3. Refunds will not be honored after the second week.

IV. REQUIREMENTS FOR GRADUATION

- A. **Associate in Arts Degree.** To receive the Associate in Arts Degree, a student must have completed at least sixty hours of college work of the freshman and sophomore years including:
1. Nine semester hours in English and at least three semester hours in speech or journalism: (E. 113, 123, 213, 223).
- or
2. Twelve semester hours in English.
 3. Twelve hours in social science: (Six hours in American or Texas history and six hours in government).
 4. Complete at least fifteen hours of work of sophomore standing. (Courses: 170's, 180's, 190's, or 200's).
 5. Earn at least twelve semester hours of credit at Alvin Junior College.
 6. A grade-point average of at least 2.0 on all courses taken. This is the equivalent of a C average on all work taken.
- B. **Associate in Science Degree.** To receive this degree, a student must complete at least sixty semester hours of college work with a "C" average and specifically:
1. Complete six semester hours of English and three semester hours of Speech: (E. 113 and 123).
 2. Pass 12 semester hours of history (H. 183, 193, 173L or 173M), and government (both Government 213 and 223).
 3. Earn at least 12 semester hours of work at Alvin Junior College.
 4. Complete two semesters of at least one science.
 5. Include at least 15 semester hours of work of sophomore standing (170's, 180's, 190's, and 200's).
 6. Have a 2.0 grade-point average on all work taken in the program.
Awarded for: Police Administration Technology.
- C. **Associate in Applied Science Degree.** This degree is awarded to students who complete the following:
1. Complete course of study in computer science, electronics, drafting technology, nursing, and secretarial science.
 2. Earn at least 12 semester hours at Alvin Junior College.
 3. Earn six semester hours of English.
 4. Earn a total of 60 semester hours of college credit.
 5. Have a 2.0 grade-point average on all courses in the program.

- D. **Terminal Education Diploma.** This diploma is primarily for the student who wishes to take terminal work at the junior college level, although many credits earned will transfer to a senior college. The student must complete the following:
1. Six semester hours in English and three semester hours in speech.
 2. Six semester hours in history (183, 193, 173L, 173M).
 3. Earn at least twelve semester hours at Alvin Junior College.
 4. Complete a major of at least twelve semester hours and earn a total of sixty semester hours.
- E. **Certificate of Completion in Technical Education.** (Given for completion of required courses in **Drafting, Electronics, Police Administration, Secretarial Science and Office Occupations, Computer Science, and Criminology and Corrections.**)
- F. **Required of All Candidates for Graduation:** Students graduating in May with a diploma or a degree are expected to attend graduation exercises. The graduation fee will be collected at the beginning of the last semester or session in residence at Alvin Junior College. August graduates will not be required to attend formal exercises.

V. CURRICULAR SUGGESTIONS

A. CORE CURRICULA

General Provisions

1. The mandatory provisions regarding transfer of college credits pertain only to credits earned at an accredited Texas public junior college, such credits having application toward a degree in an academic field covered by the core curricula at a Texas public senior college or university.
2. Each Texas public senior college or university shall accept credits earned by any student transferring from an accredited Texas public junior college; provided such credits are within the core curricula of the student's declared major field. The senior college or university shall grant the student full value toward degree requirements as these are stated in the catalog of the senior institution and as they apply to the student's declared major.
3. Inasmuch as the core curricula do necessarily depend upon the student's major, he shall be required to declare his major field no later than the end of his first year of attendance at the junior college and upon request for admission by transfer to a senior institution.
4. The student shall not be required to complete the entire core curricula for it to be valid and freely transferable, but any sub-item shall also be freely transferable, provided such item was completed prior to original registration in the senior institution.
5. The senior institution shall give any student transferring to it from a junior college the same choice in the catalog designating the degree requirements as the student would have had if his dates of attendance at the senior institution had been the same as his date of attendance at the junior college.
6. The core curricula places no limitations on the admission of a student transferring from a junior college or any other senior institution, but it does require the senior institution to evaluate transferred credits of admissible transfer students on the same basis as the work taken and earned at that senior institution.
7. Senior institutions shall give at least one calendar year's notice to all junior colleges before implementing course or curricula changes which affect the first two years of collegiate course work; and the Coordinating Board will establish a procedure for such notification.
8. Each junior college shall clearly identify on a student's transcript those courses which are terminal in nature or are so limited as to make them generally unacceptable as credit toward a bachelor's degree. It shall be the responsibility of the junior college to fully advise students of the limitations of transferring such courses for application to a bachelor's degree.
9. Courses in physical training (required physical education activities courses) are excluded from the core curricula.
10. Concerning credits earned by a student in a junior college, no senior institution shall be required to accept by transfer or toward a degree more than 66 semester credit hours, or one-half of the degree requirements if these constitute less than 66 hours. In addition to the courses listed in the core curricula, the senior institutions may count additional lower division courses which are generally acceptable in the student's major to give the total of 66 hours, or one-half of the degree requirements if these constitute less than 66 hours. Although no senior institution is required by this policy to accept more than 66 hours, the senior institution may accept additional hours under provisions allowable by accreditation standards of the Association of Texas Colleges and Universities.
11. The senior college shall recognize credits earned by advanced standing examination in the junior college, but such advanced standing credit shall be a part of the core curriculum and shall not serve to extend or enlarge the number of credits transferable.

Courses in the Core Curricula

Pending later and additional recommendation of the Coordinating Board, the junior colleges shall exercise prudent judgment in the course content of courses which shall qualify under the core curricula. In courses in the natural sciences and mathematics, due regard should be given to course content for science, mathematics, and engineering majors as may be the practice in a majority of the senior colleges. Attention must be given to course prerequisites or concurrent course enrollment requirements.

CORE CURRICULA (State Coordinating Board)

CORE CURRICULA

	Major Field I Bachelor of Arts Degree in Arts and Sciences Bachelor of Science in Mathematics & Natural Sciences	Major Field II Bachelors Degree in Business Admin- istration (incl. Accounting)	Major Field III Bachelors Degree in Engineering
Subject			
a. English Language Proficiency (i.e., freshman English)	6 hours	6 hours	9 hours
b. Literature	6 hours	6 hours	
c. Government (to meet state statute requirement)	6 hours	6 hours	6 hours
d. History (to meet state statute requirement)	6 hours	6 hours	8 hours Chemistry*
e. Natural Science A	6-8 hours	6-8 hours	8 hours Physics*
f. Natural Science B	6-8 hours		
g. Mathematics (Collegiate level)	6 hours	6 hours (Finite Math and Analysis plus sequential course appropriate to a business degree)	9 hours (analytical geom- etry and calculus)
h. Foreign Language	for the BA degree: 12-14 hours in a single language or for the BS degree: 6-8 hours in a single language		
i. Humanities Electives: excluding courses in literature beyond b. above, also no more than 12-14 hours foreign language may be used in h. and i. combined	6 hours	9 hours	3 hours (to satisfy ECPD requirements)
j. Special Courses	.....	Economics: 6 hours Accounting: 6 hours	Engineering Mathematics 3 hours* Engineering Graphics: 2 hours

*The content of these courses and the mathematics prerequisites of these courses must be the same as these same courses in the curricula of ECPD accredited senior colleges.

B. ACADEMIC OR TRANSFER PROGRAMS

ART—LEADING TO B. A. DEGREE

Freshman		Sophomore	
A.	English 113, 123 6 hrs.	A.	English 213,223 6 hrs.
B.	Soc. Sci.* 6 hrs.	B.	Government 213,223 6 hrs.
C.	Art 6 hrs.	C-1.	Education or
D-1.	Mathematics, or	C-2.	Mathematics, or
D-2.	Speech 113,123 6 hrs.	C-3.	Music 6 hrs.
E-1.	Foreign Language or	D.	Art. 6 hrs.
E-2.	Eco., Geog., or Music 6 hrs.	E.	Electives 6 hrs.
F.	P. E. Credit		
G.	Orientation 101 1 hr.		

Note: *History 113-123, 183, 193,
*Economics, Geography, or
Sociology

BUSINESS ADMINISTRATION—LEADING TO B.B.A. DEGREE

Freshman		Sophomore	
A.	English 113, 123 6 hrs.	A.	English 213, 223 6 hrs.
B.	Elective	B.	Acct. 213, 223 6 hrs.
	Math. 183, 193 9 hrs.	C.	Govt. 213, 223 6 hrs.
C.	History 183, 193 6 hrs.	D.	Economics 183, 193 .. 6 hrs.
D.	N. Science 8 hrs.	E.	Soc. 113, Phy. 113, S. 113 6 hrs.
E.	O. 101 1 hr.	F.	Bus. Law 213 3 hrs.
F.	P.E. Credit	G.	P.E. Credit

SPEECH—LEADING TO B. A. DEGREE

Freshman		Sophomore	
A.	English 113,123 6 hrs.	A.	English 213, 223 6 hrs.
B.	Speech 113,123 6 hrs.	B.	Government 213, 223 6 hrs.
C.	Mathematics or History or Educ. 6 hrs.	C.	Science** or Math 6 or 8 hrs.
D.	Foreign Language 6 hrs.	D.	History*** or Economics 6 hrs.
E.	Electives 6 hrs.	E.	Electives 9 hrs.
F.	P. E. Credit		
G.	Orientation 101 1 hr.		

Language: Spanish, French

Note: **Science — Chemistry, Phy-
sics (114-124), or Biology.
***History 113-123, 183, 193, 133,
143, 173L, 173M.

PRE-LAW—LEADING TO L.L.B. DEGREE

Freshman		Sophomore	
A. English 113, 123	..... 6 hrs.	A. English and/or Speech	..... 6 hrs.
B-1. Mathematics, or		B. Government 213,223	.... 6 hrs.
B-2. Science*	..... 6 or 8 hrs.	C-1. History**, or	
C. History **	..... 6 hrs.	C-2. Sociology, or	
D-1. Foreign Languages, or		C-3. Economics	..... 6 hrs.
D-2. Economics, or		D-1. Foreign Language, or	
D-3. Speech	..... 6 hrs.	D-2. Geography	..... 3 hrs.
E. Electives	..... 6 hrs.	E. Electives	..... 9 hrs.
F. Orientation 101	..... 1 hr.	**History 113-123, 183, 193, 133,	
G. P. E. 131-141	..... 2 hrs.	143, 173L or 173M	

Note: *Science-Biology, Chemistry, or Physics.

EDUCATION—LEADING TO B. ED. DEGREE

Freshman		Sophomore	
A. English 113, 123	..... 6 hrs.	A. English 213,223	..... 6 hrs.
B-1. Science*, or		B. Government 213,223	.. 6 hrs.
B-2. Mathematics, or		C. Psychology 113	..... 3 hrs.
B-3. History, or		D. Soc. Sci.	..... 6 hrs.
B-4. Art	..... 6 to 12 hrs.	E. Electives	..... 3 hrs.
C. Speech	..... 3 hrs.	F. Geography 183	..... 3 hrs.
D. Education	..... 3 hrs.	or Science	..... 3 hrs.
E. P. E. 131-141	..... 2 hrs.	G. P. E. 231-241	..... 2 hrs.
F. Orientation 101	..... 1 hr.		
G. F. Language	..... 6 to 9 hrs.		

Note: *Science-Biology, Chemistry, or Physics (114-124).

INDUSTRIAL ARTS—LEADING TO B. S. DEGREE

Freshman		Sophomore	
A. English 113,123	..... 6 hrs.	A. English 213,223	..... 6 hrs.
B. Mathematics	..... 6 hrs.	B. Government 213	..... 6 hrs.
C-1. Science*, or		C. Science*	..... 6 or 8 hrs.
C-2. History	..... 6 hrs.	D. Shop	..... 6 hrs.
D. Ag. 113,123, or		E. Electives	..... 9 hrs.
Shop Course	..... 6 hrs.	Note: *Science-Biology, Chemistry,	
E. Electives	..... 6 hrs.	or Physics.	
F. Orientation 101	..... 1 hr.		

Note: *Science - Biology, Chemistry or Physics.

HOME ECONOMICS—LEADING TO B. S. DEGREE

Freshman		Sophomore	
A. English 113, 123	..... 6 hrs.	A. English 213,223	..... 6 hrs.
B-1. Chemistry, or		B. Government 213,223	.. 6 hrs.
B-2. Biology	..... 8 hrs.	C-1. History 183, 193, 133,	
C-1. Mathematics, or		143, 173L, 173M or	
C-2. Foreign Language	.... 6 hrs.	C-2. Economics	..... 6 hrs.
D-1. Art, or		D. Electives	..... 6 hrs.
D-2. Education	..... 6 hrs.	E. H. Ec.	..... 6 hrs.
E. H. Ec.	..... 6 hrs.	F. P. E. 231-241	..... 2 hrs.
F. P. E. 131-141	..... 2 hrs.		
G. Orientation 101	..... 1 hr.		

PRE-ENGINEERING—LEADING TO B. S. DEGREE

Suggested studies summer after graduation from high school: take 2 subjects—(Summer school)—Alg. 113E (Algebra for Engineers) and Trig. 123.

Freshman Year

First Semester		Second Semester	
A. Chemistry 114	..... 4 hrs.	A. Chemistry 124	..... 4 hrs.
B. Analytics 133	..... 3 hrs.	B. English 123	..... 3 hrs.
C. English 113	..... 3 hrs.	C. Calculus 223 or	..... 3 hrs.
D. E. D. 113	..... 1 hr.	Calculus 225	..... 5 hrs.
E. History 183**	..... 3 hrs.	D. Physics 184L	..... 4 hrs.
F. O. 101 (Orientation)	.. 1 hr.	E. D. G. 183	..... 3 hrs.
G. P. E. 131 (Men)	..... 1 hr.	F. P. E. 141	..... 1 hr.

Note: Student may wish to take H. 193 during summer following his Fr. year.

Sophomore Year

First Semester		Second Semester	
A. English 213	..... 3 hrs.	A. English 133 (Report	
B. Physics 214	..... 4 hrs.	Writing for Tech.)	.... 3 hrs.
C. Calculus 213	..... 3 hrs.	B. Phy. 224	..... 4 hrs.
Calculus 223	..... 3 hrs.	C. Cal. 233 (Cal.	
Calculus 225	..... 5 hrs.	Applications)	..... 3 hrs.
D. Govt. 213	..... 3 hrs.	D-1. Govt. 223, or	
E-1. History 193		D-2. Electives	..... 6 hrs.
or Elective	..... 3 hrs.	E. E. P. 111	..... 1 hr.
F. P. E. 231	..... 1 hr.		

PRE-MEDICAL—LEADING TO M. D. DEGREE

Freshman		Sophomore	
A. English 113, 123	..... 6 hrs.	A. English 213, 223	..... 6 hrs.
B. Biology 114, 124	..... 8 hrs.	B. Government 213, 223	.... 3 hrs.
C. Mathematics	..... 6 hrs.	C. Science	..... 6 or 8 hrs.
D. History	..... 6 hrs.	D. Electives	..... 6 hrs.
E. Chemistry	..... 8 hrs.	E. Chemistry 284,294	.... 8 hrs.
F. P. E. 131-141	..... 2 hrs.	F. P. E. 131-141	..... 2 hrs.
G. Orientation 101	..... 1 hr.		

PRE-PHARMACY—LEADING TO PHARMACY DEGREE

Freshman		Sophomore	
A.	Chemistry 114,124 8 hrs.	A.	English 213,223 6 hrs.
B.	English 113,123 6 hrs.	B.	Govt. 213,223 6 hrs.
C.	Biology 114,124 8 hrs.	C.	Chemistry 284,294 8 hrs.
D.	Mathematics 6 hrs.	D-1.	Physics 184L or 214 or
E.	History 6 hrs.	D-2.	Economics, or
F.	O. 101 1 hr.	D-3.	Speech 113 (total) 6 or 8 hrs.
G.	P. E. 131-141 1 hr.	E.	Electives 3 hrs.

BUSINESS EDUCATION—LEADING TO B. S. DEGREE

Freshman		Sophomore	
A.	English 113 3 hrs.	A.	Business Courses 15 hrs.
B.	Bus. 173 3 hrs.	B.	Economics 183,193 6 hrs.
C.	Typing 3 or 6 hrs.	C.	English 6 hrs.
D.	Shorthand 9 hrs.	D-1.	Science, or
E-1.	Math., or	D-2.	Foreign Language, or
E-2.	Business 113 or	D-3.	Accounting 213-223 6 hrs.
E-3.	Bus. Mach. 183 3 hrs.	E.	P. E. 231-241 2 hrs.
F.	Electives 5-7 hrs.		
G.	O. 101 1 hr.		
H.	P. E. 131-141 2 hrs.		

**GENERAL LIBERAL ARTS—LEADING TO B. A. DEGREE
(Plan I)**

Freshman		Sophomore	
A.	English 113,123 6 hrs.	A.	English 213,223 6 hrs.
B.	Foreign Language 6 hrs.	B.	Sociology 6 hrs.
C.	Mathematics 6 hrs.	C.	Foreign Language 6 hrs.
D.	Economics 183 3 hrs.	D.	Speech-Govt. 6 hrs.
E-1.	Music (3), or	E.	Electives 6 hrs.
E-2.	Art (3), or	F.	P. E. 231-241 2 hrs.
E-3.	History 3 hrs.		
F.	Science 6-8 hrs.		
G.	Orientation 101 1 hr.		
H.	P. E. 131-141 2 hrs.		

**GENERAL LIBERAL ARTS—LEADING TO B. A. DEGREE
(Plan II)**

Freshman		Sophomore	
A.	Speech 6 hrs.	A.	History 3 hrs.
B.	History 6 hrs.	B.	Mathematics 3 hrs.
C.	English 113,123 6 hrs.	C.	Science 6 or 8 hrs.
D.	Electives 12 hrs.	D.	Foreign Lang. 6 or 8 hrs.
E.	O. 101 1 hr.	E.	Govt. 213, 223 6 hrs.
F.	P. E. 131-141 2 hrs.	F.	Electives 2 or 6 hrs.
		G.	P. E. 231-241 2 hrs.

MUSIC—LEADING TO BACHELOR OF MUSIC DEGREE

Freshman Year

First Semester

English 113	3 hrs.
History 183	3 hrs.
Music 132	2 hrs.
Music 152	2 hrs.
Primary Area	2 hrs.
Secondary Area	2 hrs.
Ensemble	1 hr.
P. E. 111 or 131	1 hr.
Orientation 101	1 hr.

Second Semester

English 123	3 hrs.
History 193	3 hrs.
Music 142	2 hrs.
Music 162	2 hrs.
Primary Area	2 hrs.
Secondary Area	2 hrs.
Ensemble	1 hr.
P. E. 121 or 141	1 hr.

Sophomore Year

First Semester

English 213	3 hrs.
Government 213	3 hrs.
Music 232	2 hrs.
Music 112	2 hrs.
Primary Area	2 hrs.
Secondary Area	2 hrs.
Ensemble	1 hr.
P. E. 211 or 231	1 hr.

Second Semester

English 223	3 hrs.
Government 223	3 hrs.
Music 242	2 hrs.
Music 122	2 hrs.
Primary Area	2 hrs.
Secondary Area	2 hrs.
Ensemble	1 hr.
P. E. 221 or 241	1 hr.

Note: Students must be aware that Math, Science, and Language areas will encompass approximately 12 - 14 additional college hours in addition to the above.

**PHYSICAL EDUCATION—LEADING TO BACHELOR OF SCIENCE
IN PHYSICAL EDUCATION**

FRESHMAN YEAR

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 113	3	English 123	3
Biology 114	4	Biology 124	4
History 183	3	History 193	3
Physical Education 173	1	Physical Education 163	3
Physical Education 131	1	Physical Education 141	1
Orientation 101	1	Psychology 113	3

SOPHOMORE YEAR

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 213	3	English 223	3
Government 213	3	Government 223	3
Speech 113	3	Physiology 254	4
Physiology 244	4	Sociology 213	3
Physical Education 283	3	Physical Education 241	1
Physical Education 231	1		

C. CURRICULAR SUGGESTIONS—TECHNICAL

The college offers two-year technical programs in six areas: Computer Science, Drafting, Electronics, Nursing, Law Enforcement and Police Administration, and Office Occupations. Also terminal certificate programs are offered in most of these areas. Further information on these programs is found in the technical division of the catalog beginning on page 91.

VI. COURSES OFFERED

Note: The numbers which appear in parentheses indicate the following:
(1) The number in parentheses after the course number is the original number the course was given in the first catalogue.

(2) The numbers in parentheses after the course title indicate the lecture and laboratory or practice hours.

(3) The six-digit number at the end of the entry is the State Approval Number assigned to that particular course.

1. DEPARTMENT OF AGRICULTURE

- Ag. 113, **General Animal Husbandry.** (3-2) 010401
- Ag. 123, **Fundamentals of Crop Production.** (3-2) 010302
- Ag. 133, **Farm Shop.** (3-2) 011101
- Ag. 143, **Dairying.** (3-2) 010501

2. DEPARTMENT OF ART

- Art. 103, **Watercolors.** (2-4) 020903
- Art. 113, 123, **Design.** (1-5) 020303
- Art. 163, **Interior Design.** (2-4) 020604
- Art 183, **Art for Elementary Majors.** (2-2) 021101
- Art. 193, **Basic Lettering.** (0-6) 020605
- C. A. 153, **Commercial Art I.** (0-6) 020603
- C. A. 163, **Commercial Art II.** (0-6) 020603
- A. P. 253, 263, **Advanced Painting.** (2-4) 020902
- D. P. 213, 223, **Drawing and Painting.** (2-4) 021202
- F. P. 133, **Freehand Perspective.** (2-4) 020702
- H. A. 133, 143, **History of Art.** (3-0) 020201
- I. C. 133, **Introductory Crafts.** (2-4)
- I. C. 143, **General Crafts.** (2-4)

3. DEPARTMENT OF BUSINESS ADMINISTRATION AND BUSINESS EDUCATION

- Acct. 103, **Office Accounting.** (2-1) 030201
- Acct. 213, **Accounting Theory I.** (3-1) 030101
- Acct. 223, **Accounting Theory II.** (3-1) 030101
- Acct. 233, **Tax and Payroll Accounting.** (3-0) 030105
- Acct. 273, **Cost Accounting.** (3-1) 030108
- Acct. 283, **Intermediate Accounting: I.** (3-0) 030102
- Acct. 293, **Intermediate Accounting: II.** (3-0) 030102
- Bus. 113, **Introduction to Business.** (3-0) 030301
- Bus. 173, **Business English.** (3-0) 030509
- Bus. 193, **Secretarial Practice.** (3-2) 030506
- B. A. 213, **Statistics.** (3-1) 140501
- Bus. 223, **Business Finance.** (3-0) 140603
- Bus. 233, **Office Management Procedures.** (2-1)
- Bus. Law 213, **Business Law.** (3-0) 030304

Bus. Mach. 183, Office Machines. (2-2) 030601
Bus. Math. 113, General Business Mathematics. (3-0) 140605
Shd. 153, Beginning Shorthand. (2-2) 030502
Shd. 163, Intermediate Shorthand. (2-2) 030502
Shd. 213, Advanced Shorthand. (3-0) 050503
Shd. 223, Dictation and Transcription. (3-0)
Shd. 233, Technical Dictation.
T. 153, Beginning Typing. (2-2) 030504
T. 163, Intermediate Typing. (3-0) 030504
T. 213, Advanced Typing. (3-0) 030507
For Computer Science Course offerings in Business Administration area, refer to the Computer Science Technology section.

4. DEPARTMENT OF COMPUTER SCIENCE TECHNOLOGY

C.S. 114, Introduction to Computer Science. (3-2)
C.S. 113D, Computer Operation. (2-2)
C.S. 113F, RPG Programming (3-2)
C.S. 113G, Computer Programming I. (3-2)
C.S. 113H, Technical Applications in Computer Programming. (3-2)
C.S. 113T, Key Punch and Office Procedures. (2-2)
C.S. 213C, Data Processing Applications. (3-2)
C.S. 213D, Computer Programming II. (3-2)
C.S. 213F, Computer Programming III. (3-2)
C.S. 213G, Computer Programming IV. (3-2)

5. DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Ed. 113, Introduction to Education. (3-0) 050103
Psy. 193, Human Growth and Development. (3-0) 050105
O. 101, College Orientation. (1-0) 170101
O. 101E, Orientation for the Social Studies. (0-1) 170101
Psy. 113, General Psychology. (3-0) 180802
Psy. 123, Psychology of Personal Adjustments. (3-0) 180803
Psy. 253, Business Psychology. (3-0) 180807
Psy. 133, Effective Reading and Studying. (3-0) 170102

6. DEPARTMENT OF ELECTRONIC TECHNOLOGY

E. T. 104D, D.C. Theory and Laboratory. (3-3)
E. T. 104E, A.C. Theory and Laboratory. (3-3)
E. T. 104G, Alternating Current Circuit Analysis. (3-3)
E. T. 104K, Vacuum Tubes and Transistors I. (3-3)
E. T. 204L, Vacuum Tubes and Transistors II. (3-3)
E. T. 204R, Basic Electronic Systems I. (3-3)
E. T. 204D, Basic Electronic Circuits. (3-3)
E. T. 204M, Vacuum Tubes and Transistors III. (3-3)
E. T. 204S, Basic Electronic Systems II. (3-3)
E. T. 204G, Transistor Applications and Advanced Circuits. (3-3)

E. T. 204T, Advanced Electronics Circuits and Systems. (3-3)
E. T. 104R, Instrumentation. (3-4)
E. T. M. 103D, Electronic Technical Mathematics I. (3-0)
E. T. M. 103E, Electronic Technical Mathematics II. (3-0)
E. T. M. 203G, Electronic Technical Mathematics III. (3-0)

7. DEPARTMENT OF ENGLISH AND JOURNALISM

E. 103, Fundamentals of Writing. (3-0) 070101
E. 113, Composition and Rhetoric. (3-0) 070102
E. 123, Composition and Rhetoric. (3-0) 070102
E. 133, Report Writing for Technicians. (3-0) 070401
E. 213, Survey of Literature, Part I. (3-0) 070313
E. 223, Survey of Literature, Part II. (3-0) 070313
J. 181-191, Journalism Activities. (1-1) 120401
J. 111-121, Journalism Activities. (1-1) 120401
J. 113, Basic Publications Photography. (3-2) 120301

8. DEPARTMENT OF FOREIGN LANGUAGE

Span. 114, 124, Beginner's Spanish. (3-2) 081201
Span. 134, Rapid Review of Beginner's Spanish. (3-2) 081201
Span. 153, 163, Elementary College Spanish. (3-1) 081201
Span. 183, 193, Intermediate College Spanish. (3-1) 081202
Span. 253, 263, Advanced Conversation and Composition. (3-1) 081204
Fr. 114, 124, Beginner's French. (3-2) 080401
Fr. 183, 193, Intermediate College French. (3-1) 080402

9. DEPARTMENT OF HOME ECONOMICS

Cl. 113, Textiles and Clothing. (1-4) 100101
Cl. 123, Textiles and Clothing. (1-4) 100102
Foods 183, 193, Food and Nutrition. (1-4) 100201
F. L. 133, Family Living. (3-0) 100402

10. DEPARTMENT OF INDUSTRIAL ARTS

W. W. 153, General Woodworking. (2-4) 110503
W. W. 163, Cabinet Making. (2-4) 110503
W. W. 183, 193, Advanced Cabinet Making. (2-4) 110505
G. M. 153, 163, General Metal Work. (2-4) 110402
M. S. 183, Machine Shop. (2-4) 110403
M. S. 193, Advanced Machine Shop. (2-4) 110404
E. D. 113, Engineering Drawing. (3-6) 110101
E. D. 112-121, Engineering Drawing. (4-2) (2-1) 110101
D. G. 183, Descriptive Geometry. (2-7) 140105
A. D. 132, 141, Architectural Drawing. (3-6) 110104
G. A. M. 183, General Automotive Mechanics. (2-4)
Dft. 113, Fundamentals of Drafting. (3-6)
Dft. 104D, Machine Drafting. (2-4)
A. D. 113, Architectural Drawing. (3-6)
Dft. 204D, Construction Drafting. (2-6)
Dft. 204E, Pipe Drafting. (2-3)
Dft. 203F, Structural Drafting. (3-6)
E. D. 102, Surveying. (1-3)

Bus. Mach. 183, **Office Machines.** (2-2) 030601
Bus. Math. 113, **General Business Mathematics.** (3-0) 140605
Shd. 153, **Beginning Shorthand.** (2-2) 030502
Shd. 163, **Intermediate Shorthand.** (2-2) 030502
Shd. 213, **Advanced Shorthand.** (3-0) 050503
Shd. 223, **Dictation and Transcription.** (3-0)
Shd. 233, **Technical Dictation.**
T. 153, **Beginning Typing.** (2-2) 030504
T. 163, **Intermediate Typing.** (3-0) 030504
T. 213, **Advanced Typing.** (3-0) 030507

For Computer Science Course offerings in Business Administration area, refer to the Computer Science Technology section.

4. DEPARTMENT OF COMPUTER SCIENCE TECHNOLOGY

C.S. 114, **Introduction to Computer Science.** (3-2)
C.S. 113D, **Computer Operation.** (2-2)
C.S. 113F, **RPG Programming** (3-2)
C.S. 113G, **Computer Programming I.** (3-2)
C.S. 113H, **Technical Applications in Computer Programming.** (3-2)
C.S. 113T, **Key Punch and Office Procedures.** (2-2)
C.S. 213C, **Data Processing Applications.** (3-2)
C.S. 213D, **Computer Programming II.** (3-2)
C.S. 213F, **Computer Programming III.** (3-2)
C.S. 213G, **Computer Programming IV.** (3-2)

5. DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Ed. 113, **Introduction to Education.** (3-0) 050103
Psy. 193, **Human Growth and Development.** (3-0) 050105
O. 101, **College Orientation.** (1-0) 170101
O. 101E, **Orientation for the Social Studies.** (0-1) 170101
Psy. 113, **General Psychology.** (3-0) 180802
Psy. 123, **Psychology of Personal Adjustments.** (3-0) 180803
Psy. 253, **Business Psychology.** (3-0) 180807
Psy. 133, **Effective Reading and Studying.** (3-0) 170102

6. DEPARTMENT OF ELECTRONIC TECHNOLOGY

E. T. 104D, **D.C. Theory and Laboratory.** (3-3)
E. T. 104E, **A.C. Theory and Laboratory.** (3-3)
E. T. 104G, **Alternating Current Circuit Analysis.** (3-3)
E. T. 104K, **Vacuum Tubes and Transistors I.** (3-3)
E. T. 204L, **Vacuum Tubes and Transistors II.** (3-3)
E. T. 204R, **Basic Electronic Systems I.** (3-3)
E. T. 204D, **Basic Electronic Circuits.** (3-3)
E. T. 204M, **Vacuum Tubes and Transistors III.** (3-3)
E. T. 204S, **Basic Electronic Systems II.** (3-3)
E. T. 204G, **Transistor Applications and Advanced Circuits.** (3-3)

E. T. 204T, **Advanced Electronics Circuits and Systems.** (3-3)
E. T. 104R, **Instrumentation.** (3-4)
E. T. M. 103D, **Electronic Technical Mathematics I.** (3-0)
E. T. M. 103E, **Electronic Technical Mathematics II.** (3-0)
E. T. M. 203G, **Electronic Technical Mathematics III.** (3-0)

7. DEPARTMENT OF ENGLISH AND JOURNALISM

E. 103, **Fundamentals of Writing.** (3-0) 070101
E. 113, **Composition and Rhetoric.** (3-0) 070102
E. 123, **Composition and Rhetoric.** (3-0) 070102
E. 133, **Report Writing for Technicians.** (3-0) 070401
E. 213, **Survey of Literature, Part I.** (3-0) 070313
E. 223, **Survey of Literature, Part II.** (3-0) 070313
J. 181-191, **Journalism Activities.** (1-1) 120401
J. 111-121, **Journalism Activities.** (1-1) 120401
J. 113, **Basic Publications Photography.** (3-2) 120301

8. DEPARTMENT OF FOREIGN LANGUAGE

Span. 114, 124, **Beginner's Spanish.** (3-2) 081201
Span. 134, **Rapid Review of Beginner's Spanish.** (3-2) 081201
Span. 153, 163, **Elementary College Spanish.** (3-1) 081201
Span. 183, 193, **Intermediate College Spanish.** (3-1) 081202
Span. 253, 263, **Advanced Conversation and Composition.** (3-1) 081204
Fr. 114, 124, **Beginner's French.** (3-2) 080401
Fr. 183, 193, **Intermediate College French.** (3-1) 080402

9. DEPARTMENT OF HOME ECONOMICS

Cl. 113, **Textiles and Clothing.** (1-4) 100101
Cl. 123, **Textiles and Clothing.** (1-4) 100102
Foods 183, 193, **Food and Nutrition.** (1-4) 100201
F. L. 133, **Family Living.** (3-0) 100402

10. DEPARTMENT OF INDUSTRIAL ARTS

W. W. 153, **General Woodworking.** (2-4) 110503
W. W. 163, **Cabinet Making.** (2-4) 110503
W. W. 183, 193, **Advanced Cabinet Making.** (2-4) 110505
G. M. 153, 163, **General Metal Work.** (2-4) 110402
M. S. 183, **Machine Shop.** (2-4) 110403
M. S. 193, **Advanced Machine Shop.** (2-4) 110404
E. D. 113, **Engineering Drawing.** (3-6) 110101
E. D. 112-121, **Engineering Drawing.** (4-2) (2-1) 110101
D. G. 183, **Descriptive Geometry.** (2-7) 140105
A. D. 132, 141, **Architectural Drawing.** (3-6) 110104
G. A. M. 183, **General Automotive Mechanics.** (2-4)
Dft. 113, **Fundamentals of Drafting.** (3-6)
Dft. 104D, **Machine Drafting.** (2-4)
A. D. 113, **Architectural Drawing.** (3-6)
Dft. 204D, **Construction Drafting.** (2-6)
Dft. 204E, **Pipe Drafting.** (2-3)
Dft. 203F, **Structural Drafting.** (3-6)
E. D. 102, **Surveying.** (1-3)

11. DEPARTMENT OF LAW ENFORCEMENT AND POLICE ADMINISTRATION TECHNOLOGY

P.Ad. 113, Introduction to Law Enforcement
P.Ad. 123, Criminal Investigation
P.Ad. 133, Legal Aspects of Law Enforcement
P.Ad. 213, Elements of Police Supervision
P.Ad. 223, Introduction to Police Administration
P.Ad. 233, Police Operations
P.Ad. 243, Community Relations and Law Enforcement
P.Ad. 173, Introduction to Criminal Procedure and Evidence
P.Ad. 253, Legal Aspects of Corrections
P.Ad. 263, Probation and Parole
P.Ad. 273, Juvenile Delinquency
P.Ad. 283, Understanding Human Behavior
P.Ad. 293, Interviewing and Counseling

12. DEPARTMENT OF MATHEMATICS

Alg. 103, (133), Introduction to College Algebra. (3-0) 140201
Alg. 113, College Algebra. (3-0) 140203
Alg. 113E, College Algebra for Engineers. (3-0) 140607
E. P. 111, Engineering Problems. (1-1) 140103
Math. 111, College Arithmetic. (1-1) 140109
Trig. 123, Plane Trigonometry. (3-0) 140106
An. 133, Analytic Geometry. (3-1) 140240
M. 143, Elementary Functions and Coordinate Geometry with Algebra and Trigonometry (3-2)
Cal. 215, 225, Differential and Integral Calculus. (5-1)
Cal. 213, 223, Differential and Integral Calculus. (3-0) 140301
Cal. 233, Calculus Applications. (3-0) 140606
T. E. 213, Theory of Equations. (3-0) 140401
D. E. 213, Differential Equations. (3-0) 140402
L. A. 213, Linear Algebra. (3-0)
Math. 153, Foundations of Mathematics. (3-0) 140101
Math. 163, Modern Topics in Mathematics. (3-0)
Math. 173, Modern Algebra. (3-0)
Math. 183, Finite Mathematics. (3-0) 140502
Math. 193, Analysis. (3-0)
Math. 103D, Technical Mathematics I. (3-0) 190105
Math. 103E, Technical Mathematics II. (3-0) 190107
E. T. M. 203G, Electronic Technical Mathematics III. (3-0)

13. DEPARTMENT OF MUSIC

Mu. 112-122, Survey of Music Literature. (2-1) 150104
Mu. 133, Introduction to Music. (3-0) 150102
Mu. 173, Music of Yesterday and Today. (3-0) 150101
Mu. 132-142, Music Theory. (3-0) 150107
Mu. 152-162, Ear Training and Sight-Singing. (2-1) 150105
Mu. 232-242, Music Theory. (3-0) 150108
Choir 111, 121, 211, 221, Concert Choir. (0-5) 150403
Band 151, 161, 251, 261, Stage Band. (0-3) 150402
Choir 151, 161, 251, 261, College Singers. (0-3) 150403

Choir 131, 141, 231, 241, Grand Chorus. (0-2) 150403
Mu. 131-141, Class Piano. (1-1) 150305
Mu. 151, Class Voice. (1-1) 150205
Mu. 111P, 121P, 211P, 221P, Applied Music-Piano. (1-3) 150305
Mu. 112P, 122P, 212P, Applied Music-Piano. (2-6) 150305
Mu. 111V, 121V, 211V, 221V, Applied Music-Voice. (1-3) 150306
Mu. 112V, 122V, 212V, 222V, Applied Music-Voice. (2-6) 150306
Mu. 111B, 121B, 211B, 221B, Applied Music-Brass. (1-3) 150301
Mu. 112B, 122B, 212B, 222B, Applied Music-Brass. (2-6) 150301
Mu. 111W, 121W, 211W, 221W, Applied Music-Woodwind. (1-3) 150304
Mu. 112W, 122W, 212W, 222W, Applied Music-Woodwind. (2-6) 150304
Mu. 111D, 121D, 211D, 221D, Applied Music-Percussion. (1-3) 150303
Mu. 112D, 122D, 212D, 222D, Applied Music-Percussion. (2-6) 150303
Mu. 111O, 121O, 211O, 221O, Applied Music-Organ. (1-3) 150305
Mu. 112O, 122O, 212O, 222O, Applied Music-Organ. (2-6) 150305
Mu. 111H, 121H, 211H, 221H, Applied Music-Harp. (1-3) 150302
Mu. 112H, 122H, 212 H, 222H, Applied Music-Harp. (2-6) 150302

14. DEPARTMENT OF NURSING EDUCATION

Nsg. 118, Introduction to Nursing. (4-12)
Nsg. 128, Maternal and Child Health. (3-16)
Nsg. 135, Medical-Surgical Nursing I. (9-18) (6 weeks)
Nsg. 246, Psychiatric Nursing. (6-18) (9 weeks)
Nsg. 256, Medical-Surgical Nursing II. (6-18) (9 weeks)
Nsg. 266, Medical-Surgical Nursing III. (3-9)

15. DEPARTMENT OF PHYSICAL EDUCATION

P. E. 131, 141, Physical Education for Freshman Men
P. E. 231, 241, Physical Education for Sophomore Men
P. E. 131, 231, Weightlifting for Freshman and Sophomore Men
P. E. 131, 141, 231, 241, Varsity Basketball for Freshman and Sophomore Men
P. E. 131, 141, 231, 241, Varsity Golf for Freshman and Sophomore Men
P. E. 131, 141, 231, 241, Varsity Tennis for Freshman and Sophomore Men
P. E. 131, 141, 231, 241, Varsity Baseball for Freshman and Sophomore Men
P. E., 111, Physical Education for Freshman Women
P. E. 121, Physical Education for Freshman Women
P. E. 211, Physical Education for Sophomore Women
P. E. 221, Physical Education for Sophomore Women
P. E. 151, 251, Co-Ed Volleyball
P. E. 163, Foundations of Physical Education
P. E. 173, Personal Hygiene
P. E. 283, First Aid

16. DEPARTMENT OF SCIENCE

- Bio. 114, **Elementary Zoology.** (3-3) 160101
Bio. 124, **Elementary Botany.** (3-3) 160101
Bio. 214, **Comparative Anatomy of the Vertebrates.** (2-6) 160108
Bio. 234, **Introductory Microbiology.** (3-3) 160107
Bio. 244-254, **Human Anatomy and Physiology.** (3-3) 160104
Chem. 134-144, **Introductory Chemistry.** (3-3) 160202
Chem. 114-124, **Gen. Inorganic Chemistry & Analysis.** (3-4) 160201
Chem. 214, **Quantitative Analysis.** (2-6) 160204
Chem. 284-294, **Organic Chemistry.** (3-4) 160203
Phy. 114-124, **Physics.** (3-3) 160301
Phy. 134, 144, **General Physics.** (3-3) 160302
Phy. 184L, **Mechanics and Heat.** (3-4) 160304
Phy. 214, **Electricity and Magnetism.** (3-4) 160308
Phy. 224, **Wave-Motion, Sound, Light.** (3-4) 160309
Phy. 154, **Introductory Physics.** (3-3) 160303

17. DEPARTMENT OF SOCIAL SCIENCE

- Geog. 183, **Principles of Geography.** (3-0) 180401
Govt. 213, 223, **American National and State Governments.** (3-0)
180501
Govt. 113, **Political Ideas and Institutions.** (3-0) 180507
Eco. 153, **Consumer Economics.** (3-0) 180306
Eco. 183, **Principles of Economics I.** (3-0) 180301
Eco. 193, **Principles of Economics II.** (3-0) 180301
Soc. 113, **Principles of Sociology.** (3-0) 180901
Soc. 123, **Social Problems.** (3-0) 180901
Soc. 213, **Marriage and Family Relationships.** (3-0) 180812
Soc. 223, **Contemporary Social Problems.** (3-0) 180902
Soc. 233, **Criminology** (3-0)
Soc. 243, **Penology.** (3-0)
H. 113, **Western Civilization to 1660.** (3-0) 180601
H. 123, **Western Civilization since 1660.** (3-0) 180601
H. 133, 143, **History of Latin America.** (3-0) 180607
H. 153, 163, **History of England and the British Empire.** (3-0) 180605
H. 173L, **History of Texas to 1865.** (3-0) 180606
H. 173M, **History of Texas since 1865.** (3-0) 180606
H. 184, 192, **History of Texas.** (4-0) (2-0) 180606
H. 183, (213), **The United States to 1865.** (3-0) 180604
H. 193, **The United States since 1865.** (3-0) 180604

18. DEPARTMENT OF SPEECH

- S. 113, **Fundamentals of Speech.** (3-0) 040302
S. 123, **Public Speaking.** (3-0) 040302
S. 173, **Oral Interpretation.** (3-0) 040311
S. 133, **Business Speech.** (3-0) 040307
S. 181, **Theatre Activities.** (1-0) 040205
S. 191, **Speech Activities.** (1-0) 040308

VII. DESCRIPTION OF COURSES

1. THE DEPARTMENT OF AGRICULTURE

Ag. 113. **General Animal Husbandry.** (Credit: 3 semester hours).

An introductory agriculture course intended to acquaint the student with the importance of livestock and livestock farming. A study of the types and breeds; market classes and grades of such animals as swine, beef cattle, dairy cattle, sheep and goats. Attention will be given to care and judging, with special consideration given to management of these animals.

Ag. 123. **Fundamentals of Crop Production.** (Credit: 3 semester hours).

A course designed to meet the needs of majors in Agriculture. Classification and distribution of farm crops; importance of good varieties and good seed. Crop improvement; preparation of seed beds; the use of commercial fertilizers, manure and lime; seed practices; proper tillage; harvesting; crop rotation; disease and insect enemies.

Ag. 133. **Farm Shop.** (Credit: 3 semester hours).

A general farm shop course designed to meet the needs of the agriculture student who will pursue a course of study in Agriculture Engineering, Agriculture Education or closely related agricultural fields. Included in this course: woodwork, roof framing, forging, soldering, welding, pipe fitting, machinery repair, use of hand power tools and electrical wiring.

Ag. 143. **Dairying.** (Credit: 3 semester hours).

A general course in dairying designed to meet the need of students who are majoring in Agriculture. A study of the sampling and testing of milk and milk products; the production and handling of clean milk; the composition and food value of milk and how milk is made. Attention will also be given to the feeding, care and management of the dairy herd.

2. THE DEPARTMENT OF ART

ART

Art. 103. **Watercolors.** (Credit: 3 semester hours).

This is a course for the general student and for the art major. The subject matter is unrestricted with individual and group criticisms. There are two hours of lecture and four laboratory hours per week. Prerequisite: approval of instructor.

Art. 113. **Basic Design.** (Credit: 3 semester hours).

This course explores the realm of two-dimensional designs: mosaics, collages, batiks, yarn paintings, etc. Basic skills of drawing, color theory, and use of a variety of media are included. The course has one hour of lecture and five hours of laboratory practice.

Art. 123. **Basic Design.** (Credit: 3 semester hours).

This course explores the possibilities and skills of three-dimensional art: wire sculpture, papier mache forms, bas reliefs, and carvings of balsa wood, plaster, salt blocks, and wax blocks. There is a one-hour lecture plus five laboratory hours per week.

Art. 163. **Interior Design.** (Credit: 3 semester hours).

An introductory course in home decoration with emphasis on good taste in the use of color, design, furniture, and accessories. Two one-hour lectures and four laboratory periods per week for 18 weeks. No prerequisite.

Art. 183. **Art for Elementary Majors.** (Credit: 3 semester hours).

This is a course in the methods, the philosophy, and the problems of elementary teaching. It is designed to meet the requirements for certification and has two lecture hours and two laboratory hours per week. The text for this course is Lowenfeld's and Brittain's Creative and Mental Growth.

Art. 193. **Basic Lettering.** (Credit: 3 semester hours).

This is a laboratory course which requires six hours of practice per week. It includes the study of basic alphabet forms and skills in varying these by use of many kinds of pens. Simple, effective layouts and arrangements of the printed matter are stressed.

C. A. 153. **Commercial Art I.** (Credit: 3 semester hours).

A practical course designed to refine lettering skills and to develop the special skills and techniques involved in commercial poster layouts. No prerequisite required. This is a laboratory course and six hours of practice are scheduled per week.

C. A. 163. **Commercial Art II.** (Credit: 3 semester hours).

An advanced course in commercial poster layout. It requires six laboratory hours per week. Prerequisite: C. A. 153.

A. P. 253. 263. **Advanced Painting.** (Credit: 3 semester hours each).

This course follows D. P. 213, 223 with specialization in composition and a variety of techniques extending the horizon of visual experience and creative expression. There are two lecture hours and four laboratory hours required.

D. P. 213, 223. **Drawing and Painting.** (Credit: 3 semester hours).

A laboratory course in painting providing skills in the use of: oils, pastels, gouache, acrylics, pencil, charcoal, and ink. There are two hours of lecture and four hours of studio practice per week. Each course is an eighteen week course.

F. P. 133. **Freehand Perspective.** (Credit: 3 semester hours).

Elementary problems involving the principles of linear perspective; the achievement of the illusion of volume and space through tone and color. Two lectures and four hours laboratory per week for 18 weeks.

H. A. 133. **History of Art I.** (Credit: 3 semester hours).

This is a survey of the art of the world from prehistoric times to the Renaissance. Emphasis is placed on how the happenings of each age influence the art of that age. This course requires three lecture hours per week.

H. A. 143. **History of Art II.** (Credit: 3 semester hours).

This survey course studies the art of the world from the Renaissance through the present time. It emphasizes the impact of the happenings of each age on the art of each age. This course is independent of H. A. 133 and requires three lecture hours per week.

I. C. 133. **Introductory Crafts.** (Credit: 3 semester hours).

This course is a study of various areas of craftwork including the designing and construction of projects in the areas of: art metal, weaving, ceramics, papier mache, leather, etc. The class meets for two lecture hours and four laboratory hours per week. Prerequisite: none.

I. C. 143. **General Crafts.** (Credit: 3 semester hours).

This is a continuation of I. C. 133. Special emphasis is placed on design and development of projects in jewelry, leather, art metal, ceramics, and wood. It carries two hours of lecture and four hours of laboratory work.

3. THE DEPARTMENT OF BUSINESS ADMINISTRATION

The department of Business Administration of Alvin Junior College provides three plans for business students.

1. A pre-business administration course leading to a degree in business administration designed for students who plan to attend college four years.
2. A two-year secretarial and office occupations course leading to an associate in applied science degree.
3. A one-year secretarial and office occupations course.

Any business course may be taken as a refresher course.

Acct. 103. Office Accounting. (Credit: 3 semester hours).

Procedures and techniques used in recording business transactions and preparing financial statements. Journalizing, posting, statement preparation, controlling accounts, subsidiary ledgers. Course adapted to the needs of those training for secretarial positions, and those needing background for more advanced accounting courses. (3 hours per week)

Acct. 213. Accounting Theory I. (Credit: 3 semester hours).

Accounting course for BBA majors. Fundamentals of financial reporting with appropriate papers and business exercises. Prerequisite: C.S. 114 and M. 183, 193.

Acct. 223. Accounting Theory II. (Credit: 3 semester hours).

Second course for BBA majors. Analysis of financial data and business forms. Student may not count both Acct. 183-193 and Acct. 213-223. Prerequisite: Acct. 213. Three lecture and one lab-practice hour per week.

Acct. 233. Tax and Payroll Accounting. (Credit: 3 semester hours).

This course includes the principles of Federal Income Tax procedure, social security taxes, unemployment taxes, and sales taxes. The course includes the preparation of returns for individuals, partnerships, and corporations. Prerequisite: Accounting 213 or consent of the department.

Acct. 273. Cost Accounting. (Credit: 3 semester hours).

Introductory cost course emphasizing accounting for material, labor, and manufacturing expenses. Special study given to cost elements and cost cycles; receiving, issuing, and inventorying of materials; and manufacturing expenses both actual and applied. Both job order and process cost systems considered at length. Three hours lecture and one hour laboratory per week. Prerequisite: Accounting 213 or the equivalent.

Acct. 283. Intermediate Accounting I. (Credit: 3 semester hours).

This course is designed for the student who has studied accounting principles and has some proficiency in this field. The course is designed to develop a better and a more comprehensive knowledge of accounting working papers and financial statements; income concepts; correction of prior year's earnings; corporation accounting procedures (including capital stock, surplus, divided transactions and miscellaneous topics); generally accepted accounting principles; cash receivable; and investments in stock, bonds and subsidiaries. Prerequisite: Accounting 223.

Acct. 293. Intermediate Accounting II. (Credit: 3 semester hours).

This work includes a comprehensive examination of accounting for tangible fixed assets, including acquisition, use, retirement, depreciation, depletion, and revaluations; intangible fixed assets; liabilities and reserves, interpretation of financial statements, analysis of working capital; analysis of operations; statement of application of funds; cash-flow statement; quasi-reorganizations, business combinations, and divisive reorganizations; price-level impact on financial statement. Prerequisite: Accounting 283.

Bus. 113. Introduction to Business. (Credit: 3 semester hours).

A survey of modern business organization, principles, procedures, and practices with emphasis on opportunities in the business field in Texas and the Southwest. This course is recommended for students in business administration. Three lecture hours per week.

Bus. 173. Business English. (Credit: 3 semester hours).

This course gives practice in the use of correct and forceful English in writing business letters and reports. It is preferable to take this course after taking English 113.

Bus. 193. Secretarial Practice. (Credit: 3 semester hours).

A study will be made of secretarial occupations, handling of mail, filing, office practice and routine, and secretarial personality and grooming. Prerequisite: Shorthand 153 or Shorthand 163 or its equivalent.

Bus. 213. Statistics. (Credit: 3 semester hours).

The objectives of the course are to acquaint the student with the theory of probability and to illustrate some applications of probability to statistical theory. The student will gain experience in associating and using mathematical models to interpret physical phenomenon and to predict, with reasonable certainty, the outcomes of experiments related to practical business problems. There will be computer exercises in the application of statistics to business problems. Methods of organizing and presenting data, and intelligent interpretation of statistics are emphasized throughout the course. Three hours lecture and one hour laboratory per week. Prerequisite: Algebra 113 or the equivalent.

Bus. 223. Business Finance. (Credit: 3 semester hours).

This course includes a study of the problems of business finance which are important to small business organization. It also includes a study of promotion, organization, financing, credit policy, expansion, financial difficulties and services provided by financial institutions. Prerequisite: Math. 103M or consent of department.

Bus. 233. Office Management and Procedures. (Credit: 3 semester hours).

A study is made of business etiquette, the handling of office mail, filing systems, preparation of business reports, and work flow.

Bus. Law 213. Business Law. (Credit: 3 semester hours).

Principles of law, of contracts applicable to bailments, innkeepers, carriers, sales, partnerships, corporation, property, deeds, bankruptcy, mortgages, landlord and tenant, torts and business crimes. Three hours of lecture per week. Prerequisite: Six hours of credit in business administration or business education or the consent of instructor. Formerly Law 153, 163.

Bus. Math. 113. General Business Mathematics. (Credit: 3 semester hours).

This course includes a review of business arithmetic, arithmetic short-cuts, simple and compound interest, discounts, payrolls, stocks, bonds, and property taxes.

Bus. Mach. 183. Office Machines. (Credit: 3 semester hours).

Introduction to operations of rotary calculator, electronic calculator, ten key adding machine, printing calculator, keydriven calculator, book-keeping machine, and accounting machine. Designed as a survey course to give the student an insight into the use of these machines and to develop sufficient skill for machines to be used later in offices.

Shd. 153. (113). Beginning Shorthand. (Credit: 3 semester hours).

Planned for beginners of Gregg System. Aims at mastery of the principles of Gregg shorthand with drills in the correct formation of work outlines and phrase forms; the study of word signs, phrasing, dictation, transcription, and speed building. Minimum speed dictation of 60 words per minute must be attained by the end of the semester. Prerequisite: Typing 153 or its equivalent.

Shd. 163 (123). Intermediate Shorthand. (Credit: 3 semester hours).

Continuation of Shorthand 153. Minimum speed dictation of 80 words per minute must be attained by the end of the semester. Prerequisite: Shorthand 153 or its equivalent.

Shd. 213. Advanced Shorthand. (Credit: 3 semester hours).

Improvement of shorthand speed and office efficiency through practice. Further emphasis is given to widening vocabulary. Accurate transcription is stressed. Minimum speed dictation of 100 words per minute must be attained by the end of the semester. Three hours lecture and practice time. Prerequisite: Shorthand 153-163 or the equivalent. (Usually transfers as a sophomore subject. Check with the senior college on exact transfer value).

Shd. 223. Dictation and Transcription. (Credit: 3 semester hours).

Intensive training designed to develop additional speed and accuracy in writing and transcribing shorthand to meet the demands for secretarial efficiency. Minimum speed dictation of 110 words per minute must be attained by the end of semester. (Usually transfers as a sophomore subject. Check with the senior college on exact transfer value). Prerequisite: Shd. 203 or approval of department.

Shd. 233. Technical Dictation. (Credit: 3 semester hours).

Improvement of shorthand speed and accuracy with emphasis on dictation and transcription of medical and legal papers. Prerequisite: Shd. 153.

T. 153 (113). Beginning Typing. (Credit: 3 semester hours).

Exercises planned to develop a proper wrist and finger movement leading to complete mastery of the keyboard by the touch method. Attention given to accuracy and concentration. Special effort made to attain speed at the typewriter. Practice in letter writing, use of carbon paper and miscellaneous typing. Minimum requirement of 30 credit words per minute must be maintained by end of semester.

T. 163. Intermediate Typing. (Credit: 3 semester hours).

Basic skills, rhythm, accuracy, speed, tabulation, letter and report forms are stressed. Minimum requirements of 40 words per minute must be attained by end of semester. Prerequisite: T. 153 or one year of high school typing.

T. 213. Advanced Typing. (Credit: 3 semester hours).

Emphasis on production typing with additional training given in letter writing, filing business papers, tabulation, stencil cutting, creation of office atmosphere. Minimum requirement of 60 words per minute must be attained by end of semester. Prerequisite: T. 163 or its equivalent.

TECHNICAL

Acct. 103. **Office Accounting.** (Credit: 3 semester hours).

Procedures and techniques used in recording business transactions and preparing financial statements. Journalizing, posting, statement preparation, controlling accounts, subsidiary ledgers. Course adapted to the needs of those training for secretarial positions. Two hours lecture and two hours laboratory each week, and those needing background for more advanced accounting courses. (3 hours per week).

Bus. 233. **Office Management and Procedures.** (Credit: 3 semester hours).

A study is made of business etiquette, the handling of office mail, filing systems, preparation of business reports, and work flow.

Bus. Math. 113. **General Business Mathematics.** (Credit: 3 semester hours).

This course includes a review of business arithmetic, arithmetic shortcuts, simple and compound interest, discounts, payrolls, sinking funds, stocks, bonds, brokerage, property taxes and an introduction to algebra that is applicable to commercial problems.

Bus. Mach. 183. **Office Machines.** (Credit: 3 semester hours).

Introduction to operations of rotary calculator, electronic calculator, ten key adding machine, printing calculator, keydriven calculator, book-keeping machine, and accounting machine. Designed as a survey course to give the student an insight into the use of these machines and to develop sufficient skill for machines to be used later in offices.

Shd. 203. **Advanced Shorthand.** (Credit: 3 semester hours).

Improvement of shorthand speed and office efficiency through practice. Further emphasis is given to widening vocabulary. Accurate transcription is stressed. Minimum requirement of 100 words per minute must be attained by end of semester. Prerequisite: Shd. 163 or its equivalent.

Shd. 223. **Dictation and Transcription.** (Credit 3 semester hours).

Intensive training designed to develop additional speed and accuracy in writing and transcribing shorthand to meet the demands for secretarial efficiency. Minimum speed dictation of 110 words per minute must be attained by the end of the semester. (Usually transfers as a sophomore subject. Check with the senior college on exact transfer value). Prerequisite: Shd. 203 or approval of department.

Shd. 233. **Technical Dictation.** (Credit: 3 semester hours).

Improvement of shorthand speech and accuracy with emphasis on dictation and transcription of medical and legal papers. Prerequisite: Shd. 153.

T. 213. **Advanced Typing.** (Credit: 3 semester hours).

Emphasis on production typing with additional training given in letter writing, filing business papers, tabulation, stencil cutting, creation of office atmosphere. Minimum requirement of 60 words per minute must be attained by end of semester. Prerequisite: T. 163 or its equivalent.

4. THE DEPARTMENT OF COMPUTER SCIENCE TECHNOLOGY

C.S. 114. **Introduction to Computer Science.** (Credit: 4 semester hours).

This is an introduction to computers, algorithms, and computation. Lectures will include an introduction to problem organization, detailed coverage of storage media, fundamentals of flow charting and block diagramming, fundamentals of input and output operations, and elementary programming techniques. This course is intended to provide a foundation for future detailed study of specific systems. Basic FORTRAN will be used in solving problems on the computer. Three hours lecture and two hours laboratory per week. Prerequisite: An. 133, Math. 193, or Cal. 213.

C.S. 113D. **Computer Operation.** (Credit: 3 semester hours).

This course provides extensive hands-on experience with a third generation computer system. Operation of the central processor, input-output devices, and storage devices is included. Laboratory exercises are executed involving planning and operation of the equipment. Practical exercises offered are typical of those performed in data processing installations, using keypunch, verifier, sorter, interpreter, and computer. Two hours lecture and two hours laboratory per week. Prerequisite: Consent of the department.

C.S. 113F. **RPG Programming.** (Credit: 3 semester hours).

Report Program Generator is a compiler language that will process data into a printed report with a minimum of programming effort. The coding forms provided make the programmer's role principally clerical. Lecture will include a detailed description of the language, forms, and use. Several programs are constructed, run, and debugged as an aid to comprehending RPG and its capabilities. Three hours lecture and two hours laboratory per week. Prerequisite: C.S. 113D and C. S. 114.

C.S. 113G. **Computer Programming I.** (Credit: 3 semester hours).

This course provides the student who has basic knowledge of computing systems with further knowledge of the overall structure of the IBM 360 system. The student concentrates on the use of 360 assembler language programs by making case studies and writing programs. He studies the equipment in a typical system. The laboratory sessions further reinforce basic principles by providing "hands-on" training. Three hours lecture and two hours laboratory per week. Prerequisite: C. S. 114, C. S. 113D, and consent of the department.

C.S. 113H. Technical Applications in Computer Programming.
(Credit: 3 semester hours).

This course provides the student with a basic knowledge of FORTRAN IV and its applications in the technical fields of electronics, physics, and chemistry. The student will learn the fundamental principles of operating and programming the IBM 360/30 computer. This course is designed for majors in electronics, physics, and chemistry and will not apply towards an Associate in Applied Science Degree in Data Processing. Three hours lecture and two hours laboratory per week. Prerequisite: Consent of the department.

C.S. 113T. Keypunch and Office Procedures. (Credit: 3 semester hours).

This course is designed to build speed and accuracy in the operation of the keypunch (models 26 and 29) and verifier. Fundamental principles of other punched card equipment, sorter, interpreter and accounting machines, are introduced along with control cards, organization of data, and its application in office procedures. Two hours lecture and two hours laboratory per week. Prerequisite: Consent of the department.

C.S. 213C. Data Processing Applications. (Credit: 3 semester hours).

This course is designed to acquaint the student with actual business data processing applications. Lectures will cover automatic processing of data with respect to a definite pattern of work flow from the original document to the final report. In addition to gaining a knowledge of integrated data processing and the reports needed by management, the student will acquire applicable skills in flow charting, forms design for accounting systems, methods of coding and condensing information and punch card design. Laboratory exercises will be executed that will apply the techniques necessary to implement the designed system using COBOL. Three hours lecture and two hours laboratory per week. Prerequisite: C.S. 114, ACCT. 193, and the consent of the department.

C.S. 213D. Computer Programming II. (Credit: 3 semester hours).

The course is designed to acquaint the student with the various languages that are commonly used for scientific computations. The course will specifically include a detailed study of FORTRAN IV. This course is not designed to teach the student detailed mathematical calculations involving mathematics beyond college algebra and technical mathematics. One of the basic objectives is providing the student with the tools to handle problems of an algebraic or statistical nature on a computer. Three hours lecture and two hours laboratory per week. Prerequisite: C.S. 114, C.S. 113D, Alg. 113, or Math. 183, and consent of the department.

C.S. 213F. Computer Programming III. (Credit: 3 semester hours).

The basic objective of this course is to acquaint the engineer or engineering student with various techniques that can be used to adapt engineering problems to computer solutions. The course will emphasize basic programming techniques, the FORTRAN language and other commonly used languages, principles of iteration, mathematical models, empirical

relationships, and certain appropriate mathematical topics. The laboratory exercises will include writing programs in FORTRAN and various other commonly used languages as well as running the FORTRAN programs on an IBM 360 computer. Three hours lecture and two hours laboratory per week. Prerequisite: C.S. 114 and the consent of the department.

C. S. 213G. Computer Programming IV. (Credit: 3 semester hours).

This course is designed to interface the two most common areas of data processing applications—scientific and commercial. The PL/I programming language will specifically be taught throughout the course. A combination of the FORTRAN IV and COBOL languages makes PL/I a very powerful and influential language and one that should increase the students' abilities in the programming field. Coordinated with the class lecture will be laboratory exercises that will give the student an opportunity to apply and develop these skills. Three hours lecture and 2 hours laboratory per week. Prerequisite: C.S. 114, C.S. 213D, and C.S. 213C.

5. THE DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Ed. 113. An Introduction to Education. (Credit: 3 semester hours).

This course is designed to give the college student a comprehensive, unified grasp of the education system as it exists in the United States today. The extent, organization, administration, supervision, and support of the educational system is covered. It is not designed as an indoctrination for teacher candidates but as a cultural background course.

Normally, this is the first course in education which an Alvin Junior College student would take. It was offered for the first time in 1957-58.

Psy. 193. Human Growth and Development. (Credit: 3 semester hours).

This course is intended to promote awareness of the dynamic process of human growth and development from birth through adolescence. It seeks to provide knowledge to those individuals concerned with the growth, development and problems of children. Three hours per week for 18 weeks.

O. 101. College Orientation. (Credit: 3 semester hours).

The aim of this course, required of all entering freshmen with fewer than 10 semester hours, is to make the student more effective in college through material and exercises which will stress: how to study, use of the library, curricular planning, success in college and in family living, and personal adjustments. Three hours per week for 6 weeks.

O. 101E. College Orientation for the Social Studies. (Credit: 1 semester hour).

An orientation and remedial course which is required of every freshman student who enters with low grades and low national scores in social studies. One lecture - laboratory hour per week for eighteen weeks: 18 hours.

Psy. 113. **General Psychology.** (Credit: 3 semester hours).

A first course in general psychology. It is designed to give the student a broad view of the field and acquaint him with the fundamental laws of behavior that have to do with daily conduct in various life situations. Topics include: motivation, learning, thinking, and life adjustments. Formerly Psy. 213.

Psy. 123. **Psychology of Personal Adjustments.** (Credit: 3 semester hours).

Theories of personality; individual development and adjustment along with the dynamics of adjustment as applied to personality development and effective living. Prerequisite: Psychology 113.

Psy. 133. **Effective Reading and Studying.** (Credit: 3 semester hours).

This course is designed to improve the student's reading and studying effectiveness. Speed drills, vocabulary building, and comprehension exercises are included to build the student's skills in these areas. May not count as a required course in psychology or serve as a prerequisite to additional courses in psychology. May be required if student has a low English score on ACT or CEEB test scores. Three lecture-laboratory hours per week.

Psy. 253. **Business Psychology.** (Credit: 3 semester hours).

The applications of psychological principles in the various areas of business with particular emphasis on social interaction and leadership techniques. Prerequisite: Sophomore standing.

6. DEPARTMENT OF ELECTRONICS TECHNOLOGY

E.T. 104D. **D.C. Theory and Laboratory.** (Credit: 4 semester hours).

A basic course in direct current electricity. The course is designed with emphasis upon electric current, voltage, Ohm's law, circuits, magnetism, and the use of measuring devices. Intensive three hour laboratory experiments conducted each week over subject areas. A brief description of time varying circuits will be included. Three lecture and three laboratory hours per week. Corequisite: Alg. 113 or ETM 103D.

E.T. 104E. **A.C. Theory and Laboratory.** (Credit: 4 semester hours).

A basic course in alternating current theory and applications, with emphasis upon circuit parameters, wave shapes, vector algebra, circuit laws and theorems, coupled and resonant circuits, and measurements. Three lecture and three laboratory hours per week. Prerequisite: E.T. 104D. Corequisite: Trig. 123 or ETM 103E.

E.T. 104G. **Alternating Current Circuit Analysis.** (Credit: 4 semester hours).

Course content includes alternating current circuit analysis covering Ohm's Law for A.C. circuits, series and parallel inductive-capacitive-resistive circuits, and power considerations in A.C. circuits. Also covered are transformers with theory and application, impedance matching, ratings, and losses. Three lecture and three laboratory hours per week. Prerequisite: E.T. 104D, E.T. 104E, and Alg. 113 or Math. 103D.

E.T. 104K. **Vacuum Tubes and Transistors I.** (Credit: 4 semester hours).

A basic course of study in the theory and operation of electronic devices with emphasis on solid state diodes and transistors. Graphical and equivalent circuit analysis is developed in preparation for advanced electronic courses. Three lecture and three laboratory hours per week. Co-requisite: ETM 103E or TRIG. 123 and ET 104E.

E.T. 204L. **Vacuum Tubes and Transistors II.** (Credit: 4 semester hours).

A continuation of ET 104K with a study in the theory and operation of electronic devices with emphasis on vacuum tubes, field-effect transistors and amplifiers. Three lecture and three laboratory hours per week. Prerequisite: ET 104K.

E.T. 204R. **Basic Electronic Systems I.** (Credit: 4 semester hours).

A study of radio frequency amplifiers covering voltage amplifiers, buffer devices, frequency multiplying devices, and radio frequency power amplifiers and their neutralization; also including the radio transmitter, radio frequency circuit design, amplitude modulation principles with circuits, and methods, and trouble-shooting procedures and practices. Transmission of radio waves, propagation theory, antenna fundamentals, transmission time theory, and a study of various antenna types are also covered. Three lecture and three laboratory hours per week. Prerequisite: Sixteen semester hours of electronics or the consent of the instructor.

E.T. 204D. **Basic Electronic Circuits.** (Credit: 4 semester hours).

Course includes power supply circuit analysis, the principles of rectification, principles of voltage dividers and voltage regulation. Basic amplifiers and their classification, distortion, special audio frequency considerations, the cathode follower, headsets, audio transducer devices, microphones, and phonograph pick-ups are also included. Other topics are basic oscillator circuits covering R-C and L-C action, R-C and R-L phase shifting, and various types of oscillators. Three lecture and three laboratory hours per week. Prerequisite: Sixteen semester hours of electronics or consent of the instructor.

E.T. 204M. **Vacuum Tubes and Transistors III.** (Credit: 4 semester hours).

An advanced course in vacuum tube and solid state circuits with emphasis on feed-back, oscillators and non-linear devices. Other topics covered are power supplies, silicon controlled rectifiers and micro-electronics. Three lecture and three laboratory hours per week. Prerequisite: ET 204L.

E.T. 204S. **Basic Electronic Systems II.** (Credit: 4 semester hours).

A second course in basic electronic systems, following E.T. 204R, consisting of reception and detection of radio waves, basic radio receivers, tuned radio frequency receivers, a typical T.R.F. circuit, superhetrodyne theory, alignment, and trouble-shooting. Also included are frequency modulation transmitter and receiver principles, A.M. and F.M. transmitter block diagram comparison, modulation techniques, and special transmitter considerations. Three lecture and three laboratory hours per week. Prerequisite: E.T. 204R.

E.T. 204G. **Transistor Applications and Advanced Circuits.** (Credit: 4 semester hours).

Includes study of transistor applications to basic circuits, amplifiers and their application, transistor oscillators, transmission and reception of radio waves using transistor devices. Also included are basic single sideband communication concepts, electronic time measurement systems, electronic test instruments, and non-sinusoidal circuits. Three lecture and three laboratory hours per week. Prerequisite: Sixteen semester hours of electronics or consent of the instructor.

E.T. 204T. **Advanced Electronic Circuits and Systems.** (Credit: 4 semester hours).

Course content includes wave shaping circuits, R-C and R-L differential and integrators, saturable core reactor pulsing circuits; limiter, clamper, and counter circuits, and sweep generation. Also polyphase supplies, radio frequency supplies and voltage regulator circuits, and application of advanced circuits to typical television transmitter and receiver systems. Three lecture and three laboratory hours per week. Prerequisite: E.T. 204R and E.T. 204D.

E.T. 104R. **Instrumentation.** (Credit: 4 semester hours).

A course designed to afford knowledge in test instruments. A study of multimeters, VTVM, impedance bridges, tube and transistor checkers, power supplies, amplifiers, chart recorders, light sensing devices, ammeters, and voltmeters. The use of the oscilloscope in electronics, physics, chemistry, and biology will be undertaken. This course is not an integral part of the electronic technology curriculum because all of these topics are covered in different phases of the curriculum. Three lecture and four laboratory hours per week. Prerequisite: Consent of the instructor.

E.T.M. 103D. **Electronic Technical Mathematics I.** (Credit: 3 semester hours).

A course designed for electronic technology majors providing a thorough review of algebra, equation and formula manipulation as applied to electronics, and the slide rule as a calculation aid. Three lecture hours per week.

E.T.M. 103E. **Electronic Technical Mathematics II.** (Credit: 3 semester hours).

A continuation of E.T.M. 103D with emphasis on trigonometric functions, exponents, logarithms, complex numbers, vector algebra, and an introduction to calculus notations. Three lecture hours per week. Prerequisite: E.T.M. 103D or Algebra 113.

E.T.M. 203G. **Electronic Technical Mathematics III.** (Credit: 3 semester hours).

A study of applied differential and integral calculus with emphasis on practical electronic applications of non-decimal number systems. Three lecture hours per week. Prerequisite: ETM 103E or Trig. 123.

7. THE DEPARTMENT OF ENGLISH AND JOURNALISM

ENGLISH

E. 103 **Fundamentals of Writing.** (Credit: 3 semester hours terminal, non-transferable).

This course is required of all entering freshmen who receive a low score on the entrance examination in English. Emphasis will be placed on these studies: grammar, spelling, punctuation, developmental reading, and paragraph writing.

E. 113. **Composition and Rhetoric.** (Credit: 3 semester hours).

This standard course aims to promote clarity and correctness of expression through a review of grammar and through practice in writing. It includes the study of techniques of prose writing through a consideration of the essay and short fiction.

Advanced Placement in E. 113. (Credit: 3 semester hours).

Credit for English 113 can be applied for by a prospective student with superior high-school grades who scores in the upper tenth percentile on the verbal section of an entrance test approved by the testing officer of the college. The student must also write a composition acceptable to the English Department. If he meets all requirements, he is then eligible to enroll in English 123. Cost: \$6.00. See Advanced Placement in catalog.

E. 123. **Composition and Rhetoric.** (Credit: 3 semester hours).

This course enlarges on the skills and concepts relating to composition and literature covered in English 113. It provides more intensive practice in theme writing, including a research paper, and emphasizes the techniques of longer prose fiction, drama, and poetry. English 113 and 123 are required for an Associate in Arts Degree. Prerequisite: English 113.

E. 133. Report Writing for Technicians. (Credit: 3 semester hours).

A course designed to emphasize purpose of reports, proper form, industrial uses, and gathering and evaluating material. Oral reports included. Emphasis is on exposition. This course is designed for Associate in Arts candidates. It is not a substitute for English 123. Three lecture hours each week. Prerequisite: English 113.

E. 213. Survey of Literature. (Credit: 3 semester hours).

This course is a study of masterpieces of literature of the classical style. An effort will be made to share through literature some of the ideas which have shaped our cultural heritage and to show how these ideas in literature are related to those expressed in other arts. Collateral reading, reports, and themes will be required. Prerequisite: English 113 and 123.

E. 223. Survey of Literature. (Credit: 3 semester hours).

This course is a continuation of English 213. The study includes romantic, realistic, impressionistic and expressionistic styles of literature. Collateral reading, reports, and themes will be required. Prerequisite: English 213.

J. 111-121, 211-221. Journalism Activities. (1-1). (Credit: 1 semester hour each).

This course is a supervised laboratory course in which students work on the staff of the school newspaper. Prerequisite: A grade of "C" in English and the consent of the class instructor. Lectures and practice-lab hours required.

J. 113. Basic Publications Photography. (2-3). (Credit: 3 semester hours).

This introductory course in photography covers the fundamentals of the photographic process and provides instruction in using camera equipment and in developing film. Two lecture and three lab hours required.

J. 181-191. Journalism Activities. (Credit: 1 semester hour each).

This course is designed to give the basic training to journalism students who wish to work on the yearbook. Prerequisite: A "C" grade in English and the consent of the class instructor. Lectures and practice-lab hours required.

8. THE DEPARTMENT OF FOREIGN LANGUAGE

Span. 114, 124. Beginner's Spanish. (Credit: 8 semester hours).

This course is designed for students who have had no previous study in Spanish. It consists basically of a conversational approach emphasizing accurate pronunciation and oral work, but also includes considerable drill on grammar. Students are required to attend three lecture hours and two laboratory hours per week.

Span. 153, 163. Elementary College Spanish. (Credit: 6 semester hours).

While this course is definitely aimed toward proficiency in conversational Spanish, care is taken to give the student the necessary background in pronunciation, verb forms, and grammatical construction to enable him to take the following courses in Intermediate College Spanish. Three lecture hours and one laboratory hour per week.

Span. 183, 193. Intermediate College Spanish. (Credit: 6 semester hours).

This course includes more complex grammatical points. Reading of classical and contemporary literature with a view to furthering Good Neighbor relationships and gaining a better understanding of international affairs. Three lecture hours and one laboratory hour per week.

Span. 253, 263. Advanced Conversation and Composition. (Credit: 6 semester hours).

This course is designed to further the student's study and use of Spanish after the fourth semester of college study in the language. Since it is an advanced course, approval of the Department is necessary in order to register for credit. Three lecture hours and one laboratory hour per week.

Fr. 114, 124. Beginner's French. (Credit: 8 semester hours).

This course is designed for those students who have had no previous instruction in French. Stress is placed on conversational French though care is exercised to teach the essentials of grammar. Three hours of lecture and two hours of laboratory are required per week.

Fr. 183-193. Intermediate College French. (Credit: 6 semester hours).

French readings, grammar, and composition based partly on a formal text and partly on selected readings. Stress will be placed on oral work. Three hours lecture and one hour laboratory per week.

Span. 134. Rapid Review of Beginner's Spanish. (Credit: 4 semester hours).

Course designed for student who wishes to review quickly the essentials of two years of study. Grammar and conversation. Three lecture and two laboratory hours per week.

9. THE DEPARTMENT OF HOME ECONOMICS

Cl. 113. Textiles and Clothing. (Credit: 3 semester hours).

A course in elementary construction. This course is planned to help students meet simple clothing problems. Emphasis is placed on the five common textile fibers, selection of becoming and appropriate clothing, consideration of factors that influence price and suitability of fabrics for different uses.

One class and 4 laboratory periods per week.

Cl. 123. Textiles and Clothing. (Credit: 3 semester hours).

A continuation of clothing study that provides for developing skills in fitting, tailoring, and remodeling clothes. One class and four laboratory periods weekly. Required for homemaking majors.

Foods 183, 193. Foods and Nutrition. (Credit: 6 semester hours).

This course deals with nutrition and the selection, cost preparation of food, basic preparation of recipes and table service. One lecture period and four laboratory periods weekly. Required for homemaking majors.

Course may be taken for one semester only with the approval of the Dean and the Instructor.

F. L. 133. Family Living. (Credit: 3 semester hours).

This course covers the study of the history of the family, its changes, and its present characteristics. Home management, equipment and its care, management problems relating to family, social life and daily living, and ways of improving marriage and family life are included in this course.

10. THE DEPARTMENT OF INDUSTRIAL ARTS

W.W. 153, (113). General Woodworking. (Credit: 3 semester hours).

A course for the purpose of designing and constructing simple wood projects with hand tools by applying shop principles learned about hand tools, finishes and finishing materials, construction, wood fasteners, and cabinet hardware. Elementary construction with woodworking machines will follow the hand tool information. Meets for 2 theory classes and four hours of laboratory work per week. Prerequisite: none.

W.W. 163. Cabinet Making. (Credit: 3 semester hours).

A continuation of Woodwork 153, but centering around the use, care, and operation of machines. The course will include design, construction, factory methods, a study of lumber, and upholstery. Meets for 2 theory classes and four laboratory hours per week. Prerequisite: W. W. 153 or equivalent.

W.W. 183, 193. Advanced Cabinet Making. (Credit: 6 semester hours).

A course in advanced cabinet making and design based on factory methods. This course is designed to fit the student for employment or for specialization at a senior college in this field. Class meets for 2 theory lessons and 4 laboratory hours per week. Prerequisite: W.W. 163.

G. M. 153, 163. General Metalwork. (Credit: 6 semester hours).

This is an introductory course in metal work. Emphasis is given to the study and discussion of processes and procedures of working metals as utilized by industry. Students will complete laboratory work in: Bench metal, Welding (oxy-acetylene and arc), Forging and Heat-treat, Ornamental iron work, Basic sheetmetal work, Foundry and machine work (drill press, grinder, and engine lathe). Two lecture - four laboratory hours per week.

M. S. 183. Machine Shop. (Credit: 3 semester hours).

This course deals primarily with the machining of metal. Emphasis is placed on the operations, safety and maintenance of metal working machines. Student laboratory work includes operating the grinder, drill press, engine lathe, shaper, and milling machine. Two theory classes and four hours of laboratory per week. Prerequisite: G. M. 163 or equivalent.

M. S. 193. Advanced Machine Shop. (Credit: 3 semester hours).

This course is designed to further the machine shop experience of the student who primarily is interested in this type of work. With the aid of the instructor, the student selects special projects involving machine shop experiences gained in the other machine shop courses and furthers his ability and knowledge as a learner in industry or production work. Two hours of lecture and four hours of laboratory per week. Prerequisite: M. S. 183.

E. D. 113. Engineering Drawing. (Credit: 3 semester hours).

Engineering drawing is designed for the student who plans to major in Engineering at a senior college. It offers drafting experiences and reproduction procedure comparable to industrial practices. Nine hours of lecture-laboratory-practice work per week.

E. D. 112-121. Engineering Drawing. (Credit: 3 semester hours).

Same course as Engineering Drawing 113, but divided into two semesters of work; six hours of lecture and laboratory the first semester and three hours of lecture and laboratory the second term.

D. G. 183. Descriptive Geometry. (Credit: 3 semester hours).

A course designed for those who plan to major in engineering in a senior college. Point, line and plane problems; tangent planes, intersectional and developed surfaces; auxiliary views; shade shadow, and perspective. Two lectures and seven hours of supervised problem work per week. Prerequisite: Engineering Drawing and entrance credit for Solid Geometry.

D. G. 183A. **Descriptive Geometry.** (Credit: 1½ semester hours).

First half of D.G. 183 plus selected review of Engineering Drawing 112. Four lecture-laboratory hours per week.

D.G. 183B. **Descriptive Geometry.** (Credit: 1½ semester hours).

This course constitutes the second half of D.G. 183. Four lecture-laboratory-practice hours per week.

A. D. 132, 141. **Architectural Drawing.** (Credit: 3 semester hours).

This course is set up as a beginning course in Architecture involving some basic principles of design and composition; free hand sketching, techniques of presentation and simple practice problems. Nine hours of lecture-laboratory-practice per week. Permission of instructor is necessary to take the course.

G. A. M. 183. **General Automotive Mechanics.** (Credit: 3 semester hours).

A study of the fundamental principles of operation of the various units of the automobile and engine; care and safety of operation, and preventative maintenance; with some emphasis placed on methods of teaching by the use of visual aids in the form of cut away units, mock ups, films, charts, tune up equipment, and operational automobile units in the shop. Class meets for two hours theory and four hours of laboratory per week.

TECHNOLOGY

Dft. 113. **Fundamentals of Drafting.** (Credit: 3 semester hours).

A course designed with exercises in the use of drawing instruments, freehand lettering, geometric construction, projections, isometric drawings, oblique drawings, graphs, and freehand sketching. Required three hours lecture and six hours laboratory each week.

D.G. 183. **Descriptive Geometry.** (Credit: 3 semester hours).

A course designed for those who plan to major in engineering in a senior college. Point, line and plane problems; tangent planes, intersectional and developed surfaces; auxiliary views; shade shadow, and perspective. Two lectures and seven hours of supervised problem work per week. Prerequisite: Engineering Drawing and entrance credit for Solid Geometry.

Dft. 104D. **Machine Drafting.** (Credit: 4 semester hours).

A course designed for the assembly drawings of small machines. Special emphasis is put upon detail drawings and manufacturing specifications. Two lecture hours and four laboratory hours per week. Prerequisite: Dft. 113.

A.D. 113. **Architectural Drawing.** (Credit: 3 semester hours).

This course is set up as a beginning course in architecture involving some basic principles of design and composition; freehand sketching, techniques of presentation and simple practice problems. Nine hours of lecture-laboratory-practice per week. Permission of instructor is necessary to take the course.

Dft. 204D. **Construction Drafting.** (Credit: 4 semester hours).

A course designed to gain insight into all types and methods of construction, the nature of various building materials and their use. Two lecture hours and six laboratory hours each week. Prerequisite: Dft. 104D.

Dft. 204E. **Pipe Drafting.** (Credit: 4 semester hours).

A course designed for the study of engineering standards, pipe and fitting designs, symbols and specifications, designing and sizing process systems. Drafting of flow diagrams, vessels, pumps, heat exchangers, instruments, compressors, and other equipment. Two lecture and three laboratory hours each week. Prerequisite: Dft. 104D.

Dft. 203F. **Structural Drafting.** (Credit: 3 semester hours).

A course designed to cover A.I.S.C. specifications and standards, structural data and theory, and design and detail of structural members and connections. Emphasis upon design and detail and specifications for light industrial structures to include structural steel, pipe, and reinforced concrete rods. Three lecture and six hours laboratory per week. Prerequisite: Engineering Drafting, Descriptive Geometry, and Architectural Drawing.

E.D. 102. **Surveying.** (Credit: 2 semester hours).

A course designed to emphasize the principles and fundamentals of surveying, including use of the tape, level, transit, tabulation of field data, boundary surveys, and topographic mapping. Prerequisite: Adequate math background and/or consent of the instructor. One lecture and three laboratory hours each week.

See Art Department offerings for description of Crafts Course

11. DEPARTMENT OF LAW ENFORCEMENT & POLICE SCIENCE TECHNOLOGY

P. Ad. 113. **Introduction to Law Enforcement.** (Credit: 3 semester hours).

An introductory course to law enforcement. Covers the history of the police profession and the development of the English and American police systems. Organization of federal, state, and local law enforcement agencies, their authority, duties, and responsibilities. Includes career opportunities, personnel requirements, and standards. Three lecture hours per week for 18 weeks.

P. Ad. 123. **Criminal Investigation.** (Credit: 3 semester hours).

Theories and concepts of the investigator's role in modern criminal investigation; basic skills necessary in conducting an investigation, developing sources of information, the collection and preservation of evidence, and preparation of reports are developed. Three lecture hours per week for 18 weeks.

P. Ad. 133. **Legal Aspects of Law Enforcement.** (Credit: 3 semester hours).

History and philosophy of modern law; laws of arrest, search and seizure; determination of probable cause; Texas Penal Code; emphasis on practical legal problems confronting the law enforcement officer. Three lecture hours per week for 18 weeks.

P. Ad. 173. **Introduction to Criminal Procedure and Evidence.** (Credit: 3 semester hours).

Examination of the rules governing the admissibility of evidence as they may affect the law enforcement officer in the administration of criminal justice, including study of the rules of evidence, kinds and degrees of evidence and their application in the legal processes from arrest through probation and parole procedures to final disposition of the case. Three lecture hours per week for 18 weeks.

P. Ad. 213. **Elements of Police Supervision.** (Credit: 3 semester hours).

Duties and problems of the police supervisor; recruitment, training, promotion, discipline and morale, duty assignments and shift supervision, human relations and leadership problems, essentials of organization, types of organizations, planning the work of the department. Three lecture hours per week for 18 weeks.

P. Ad. 223. **Introduction to Police Administration.** (Credit: 3 semester hours).

An analysis of the duties and responsibilities of police administrators; study of the principles of police organization; police management, coordination and personnel management. Three lecture hours per week for 18 weeks.

P. Ad. 233. **Police Operations.** (Credit: 3 semester hours).

Principles of organization and functioning of police patrols; problems and methods of operation and supervision; police records and communications. Three lecture hours per week for 18 weeks.

P. Ad. 243. **Community Relations and Law Enforcement.** (Credit: 3 semester hours).

The interrelationship of law enforcement agencies and the community; problems related to police-community relations; emerging law enforcement concept of active involvement in community relations. Three lecture hours per week for 18 weeks.

P. Ad. 253. **Legal Aspects of Corrections.** (Credit: 3 semester hours).

Legal problems from conviction to release; pre-sentence investigation, sentencing, probation and parole, loss and restoration of civil rights. Court system of U. S. is explained at all levels.

P. Ed. 263. **Probation and Parole.** (Credit: 3 semester hours).

Probation as a judicial process and parole as an executive function are examined as to development and organization.

P. Ad. 273. **Juvenile Delinquency.** (Credit: 3 semester hours).

The nature and extent of delinquency. The environments in which juvenile delinquency develops, delinquent sub-cultures and peer groups; evaluation of prevention, control and treatment programs. Prerequisite: Soc. 113 or 123 or approval of instructor.

P. Ad. 283. **Understanding Human Behavior.** (Credit: 3 semester hours).

Deviant behavior in infancy, childhood, adolescence, and the adult; psychodynamic processes, diagnostic and therapeutic procedures. Prerequisite: Psy. 113 or approval of instructor.

P. Ad. 293. **Interviewing and Counseling.** (Credit: 3 semester hours).

Emphasis on principles and procedures. Review and analysis of the various approaches and techniques used with individuals and groups.

12. THE DEPARTMENT OF MATHEMATICS

Alg. 113. **College Algebra.** (Credit: 3 semester hours).

This course includes a review of the properties of real numbers followed by a more intensive study of polynomials, rational exponents, radicals, open sentences in one variable, relations and functions, exponential and logarithmic functions, systems of equations, matrices and determinants, complex numbers and vectors, theory of equations, sequences and series, and probability.

Alg. 113E. **College Algebra for Engineers.** (Credit: 3 semester hours).

This course is for pre-engineering and science majors. It includes only a brief review of elementary topics followed by a more intensive study of advanced topics in quadratic equations, systems of quadratic equations, inequalities, progressions, complex numbers, elementary theory of equations, permutations, combinations, mathematical induction and other selected topics as time permits. Prerequisite: Two years of high school algebra or consent of department.

Alg. 103. **Introduction to College Algebra.** (Credit: 3 semester hours (T)).

Students who have a poor academic foundation should enroll for this course which gives review topics in elementary algebra and moves on to more advanced topics such as fractions, linear equations in one unknown, systems of equations, graphs, exponents and radicals.

E. P. 111. **Engineering Problems.** (Credit: 1 semester hour).

This is a course for pre-engineers and science majors. It is designed to introduce the student to elementary problems from all fields of engineering and science. Particular emphasis is placed on learning to manipulate the slide rule with speed and accuracy. Two lecture-laboratory hours per week for 18 weeks.

Math. 111. **College Arithmetic.** (Credit: 1 semester hour).

The acquisition in precise form of those ideas or concepts in terms of which the quantitative thinking of the world is carried out. This course will stress understanding and correct use of whole numbers, fractions, percentage, and measurements. Short methods of calculation will be stressed throughout the course. One hour of lecture and one hour of laboratory per week.

Trig. 123. **Plane Trigonometry.** (Credit: 3 semester hours).

Mastery of trigonometry functions with applications; functions of acute angles; functions of obtuse, and multiple angles; identities; derivation of formulas; logarithms; solution of both right triangles and obtuse triangles; practical problems involving heights and distances; graphical representation of trigonometric functions and geometric applications.

An. 133. **Analytic Geometry.** (Credit: 3 semester hours).

A course in the solution of geometric problems through applied algebra by the graphical representation of points, lines, curves and the transformation of coordinates, polar coordinates, transcendental curves, vectors, parametrics and space formulas, with special emphasis on rapid curve sketching. Three lecture and one laboratory hour per week. Prerequisite: Algebra 113E and Trig 123 or permission of instructor.

M. 143. **Elementary Functions and Coordinate Geometry with Algebra and Trigonometry.** (Credit: 3 semester hours).

A study of elementary functions, their graphs and applications, including polynomials, rational and algebraic functions, exponential, logarithmic and trigonometric functions; an introduction to three dimensional analytic geometry. Prerequisite: Basic high school mathematics.

Note: A student may not receive credit for both Analytics 133 and Elementary Functions 143.

Cal. 215, 225. **Differential and Integral Calculus.** (Credit: 10 semester hours. 5 semester hours each semester).

This course is designed to meet the needs of engineering and science students. Differentiation and integration of algebraic functions with applications, followed by a similar treatment of transcendental functions, formal integration by various devices, series, expansion of functions, partial derivatives and multiple integrals constitute the course. Five lecture hours and one laboratory hour per week. Prerequisite: An. 133 or M. 143.

Cal. 213, 223. **Differential and Integral Calculus.** (Credit: 6 semester hours).

These courses are designed to meet the needs of engineering and science majors. These two courses, followed by a course in calculus applications, are fully equivalent to Calculus 215, 225. A study of limits, differentiations, rates, maxima and minima, curvature, elementary integrals, definite integrals, areas, lengths, and volumes constitute the material in the course. Prerequisite: An. 133 or M. 143.

Cal. 233. **Calculus Applications.** (Credit: 3 semester hours).

A study of centroids, moments of inertia, pressure, work, partial differentiation, series, multiple integrals, and hyperbolic functions constitute the material in this advanced course. Prerequisite: Calculus 223.

T. E. 213. **Theory of Equations.** (Credit: 3 semester hours).

This course will include complex number system, remainder theorem, factor theorem, synthetic division, solutions of polynomial equations, determinants, matrices, symmetric functions, and discriminants. Prerequisite: An. 133 or M. 143.

D. E. 213. Differential Equations. (Credit: 3 semester hours).

This course is made to meet the needs of engineering students. The following topics are included in the course study: equations of the first order, singular solutions, linear equations with constant coefficient, miscellaneous methods of solving equations of higher order than the first, with geometric and physical applications. Three lecture hours per week for 18 weeks. Prerequisite: Calculus 223 or 225.

L.A. 213. Linear Algebra. (Credit: 3 semester hours).

Systems of linear equations, vector spaces, linear dependence, bases, dimensions, linear mappings, matrices, determinants, quadratic forms, orthogonal reduction to diagonal form, eigenvalues, applications. Prerequisite: Enrollment in or credit for Calculus 223 or approval of instructor.

Math. 153. Foundations of Mathematics. (Credit: 3 semester hours).

Modern methods will be used to develop skill and understanding in the use and meaning of sets, number symbols, operations, properties, equivalence and number relations, modular systems and bases, scientific notation, measurements, coordinate systems, equations, and various number systems.

Math. 163. Modern Topics in Mathematics. (Credit: 3 semester hours).

Topics will include studies in modern geometry, sets, relations and functions, ratio and percent, systems of logic, statistics and graphs, probability, systems of equations, and problem solving with practical applications.

Math. 173. Modern Algebra. (Credit: 3 semester hours).

Modern Elementary Algebra is an extension of Topics in Modern Mathematics for elementary teachers (Math 153-163). Systems of numeration and the basic concept of sets will be reviewed quickly but thoroughly. Thereafter, major emphasis will be placed on mathematical logic, the nature of proof, algebraic structure and the derivation of algebraic processes from postulates. A study of number systems beginning with the natural numbers will proceed through the successive extensions of the number systems with repeated reference to the basic postulates. Three hours of lecture per week per semester.

Math. 183. Finite Mathematics. (Credit: 3 semester hours).

This course is designed to meet the needs of students majoring in business and other related fields. The course includes a review of the elementary topics of Algebra followed by a study of logic, sets, equations, relations, functions, linear systems, vectors, matrices, linear programming, and non-linear functions. Three lecture hours per week. Prerequisite: Two years of high school Algebra.

Math. 193. Analysis. (Credit: 3 semester hours).

This course is designed to meet the needs of students majoring in business management, science, quantitative analysis or other related fields. The course includes a review of the real number system, relations and functions, sequences and series, and then follows these topics with a study of the differential and integral calculus. Three lecture hours per week. Prerequisite: Finite Mathematics (Math 183) or the equivalent.

TECHNOLOGY

Math 103D. Technical Mathematics I. (Credit: 3 semester hours).

A course designed to offer a thorough review in the fundamental operations of algebra, with added emphasis upon the solution of quadratic and linear equations, radical operations, negative and fractional exponents, curve plotting and the function idea. Three hours of lecture each week.

Math 103E. Technical Mathematics II. (Credit: 3 semester hours).

A math course with emphasis upon logarithms and the slide rule, trigonometric functions, solutions of equations involving trigonometric functions as well as solutions of triangles, complex numbers, and vector algebra. Three lecture hours each week.

13. DEPARTMENT OF MUSIC

Mu. 112. **Survey of Music Literature.** (2-1). (Credit: 2 semester hours).

A required course for music majors studying the fundamentals of music terminology and standard instrumental and vocal forms. Representative composers and compositions from secular and sacred music of most major eras are studied by means of records, lecture, and reports. Two lecture hours and one lab-hour per week. Prerequisite: none.

Mu. 122 **Survey of Music.** (3-0). (Credit: 2 semester hours).

A continuation of Music 112. Two lecture hours and one laboratory hour per week. Prerequisite: Music 112.

Mu. 133. **Introduction to Music.** (3-0). (Credit: 3 semester hours).

This course is designed to familiarize students with the meaning of musical notation through the study of scales, chords, and rhythm. Especially adapted for students preparing to become teachers and other students who wish to gain a working knowledge of music. Three lecture hours per week. Prerequisite: none.

Mu. 173. **Music of Yesterday and Today.** (3-0). (Credit: 3 semester hours).

The aim of this course is to provide a foundation for the enjoyment and understanding of music. Representative composers and their works are studied through recorded music. This course is a general survey for the non-music major. Three lecture hours per week. Prerequisite: none.

Mu. 132. **Music Theory.** (3-0). (Credit: 2 semester hours).

A study of the fundamentals of musicianship. Includes a study of scales, intervals, diatonic triads, inversions, written and keyboard harmony and a study of the dominant seventh chords and inversions. Class meets three hours per week. Prerequisite: Music 133 or approval of instructor.

Mu. 142. **Music Theory.** (3-0). (Credit: 2 semester hours).

A continuation of Music 132. Class meets three hours per week. Prerequisite: Music 132.

Mu. 152. **Ear Training and Sight-Singing.** (2-1). (Credit: 2 semester hours).

A first year course which provides basic aural, visual, and vocal experiences in dictation and sight-singing. Two lecture hours and one laboratory hour per week. Prerequisite: Approval of the instructor.

Mu. 162. **Ear Training and Sight-Singing.** (2-1). (Credit: 2 semester hours).

A continuation of the first semester course with more advanced work in dictation and sight-singing. Two lecture hours and one laboratory hour per week. Prerequisite: Music 152.

Mu. 232. **Music Theory.** (3-0). (Credit: 2 semester hours).

A continuation of the first year course with advanced aural and written study with emphasis on chromatic harmony and harmonic analysis. Class meets three hours per week. Prerequisite: Music 142.

Mu. 242. **Music Theory.** (3-0). (Credit: 2 semester hours).

A continuation of Music 232. Class meets three hours per week. Prerequisite: Music 232.

ENSEMBLES

Choir 111, 121, 211, 221. **Concert Choir.** (Credit: 1 semester hour each).

This choir presents in concert many selections of the world's fine literature. In addition to local concerts, this group will participate in campus activities and will make several concert tours to other cities. In order to obtain credit, members are to attend all called rehearsals and public performances. Five rehearsal hours per week. Prerequisite: High School choir experience is preferred, although others may be admitted by audition.

Band 151, 161, 251, 261. **Stage Band.** (Credit: 1 semester hour each).

This organization is designed for students interested in stage band music. Membership is open to all college students by audition with the director. Three rehearsal hours per week.

Choir 151, 161, 251, 261. **College Singers.** (Credit: 1 semester hour each).

This organization is limited in membership. Students are selected through auditions from the membership of the college choir. Three rehearsal hours per week. Prerequisite: Previous experience in choral music, a member in good standing of the college choir with ability to sight-read well.

Choir 131, 141, 231, 241. **Grand Chorus.** (Credit: 1 semester hour each).

Membership in this chorus is open to all students. A course in choral singing designed to acquaint the student with some of the better choral literature. At least one public concert is given each semester. Two rehearsal hours per week.

APPLIED MUSIC

Mu. 131. **Class Piano.** (1-1). (Credit: 1 semester hour).

Class piano is designed for four to six students per class with little or no previous experience. A study of basic techniques, scales, chords and basic repertoire. Meets two hours per week. Prerequisite: none.

Mu. 141. **Class Piano.** (1-1) (Credit: 1 semester hour).

A continuation of Music 131. Meets two hours per week. Prerequisite: Music 131.

Mu. 151. **Class Voice.** (1-1) (Credit: 1 semester hour).

This course is designed for four to six students per class with little or no previous vocal music experience. Basic techniques of voice production are studied through songs. Meets two hours per week. Prerequisite: none.

Mu. 111P, 121P, 211P, 221P. **Applied Music—Piano.** (1-3). Credit: 1 semester hour each).

One-half hour of individual instruction a week. Requires three hours of practice. Prerequisite: Approval of instructor.

Mu. 112P, 122P, 212P, 222P. **Applied Music—Piano.** (2-6). (Credit: 2 semester hours each).

One hour of individual instruction a week. Requires six hours of practice. Prerequisite: Approval of instructor.

- Mu. 111V, 121V, 211V, 221V. **Applied Music—Voice.** (1-3). (Credit: 1 semester hour each).
One-half hour of individual instruction a week. Requires three hours practice. Prerequisite: Approval of instructor.
- Mu. 112V, 122V, 212V, 222V. **Applied Music—Voice.** (2-6). (Credit: 2 semester hours each).
One hour of individual instruction a week. Requires six hours of practice. Prerequisite: Approval of instructor.
- Mu. 111B, 121B, 211B, 221B. **Applied Music—Brass.** (1-3). (Credit: 1 semester hour each).
One-half hour of individual instruction are offered in trumpet, trombone and French horn. Requires three hours of practice. Prerequisite: Approval of instructor.
- Mu. 112B, 122B, 212B, 222B. **Applied Music—Brass.** (2-6). (Credit: 2 semester hours each).
One hour of individual instruction is offered in trumpet, trombone and French horn. Requires six hours of practice. Prerequisite: Approval of instructor.
- Mu. 111W, 121W, 211W, 221W. **Applied Music—Woodwind.** (1-3). (Credit: 1 semester hour each).
One-half hour of individual instruction is offered in flute, oboe, clarinet, saxophone and bassoon. Requires three hours of practice. Prerequisite: Approval of instructor.
- Mu. 112W, 122W, 212W, 222W. **Applied Music—Woodwind.** (2-6). (Credit: 2 semester hours each).
One hour of individual instruction is offered in flute, oboe, clarinet, saxophone and bassoon. Requires six hours of practice. Prerequisite: Approval of instructor.
- Mu. 111D, 121D, 211D, 221D. **Applied Music—Percussion.** (1-3). (Credit: 1 semester hour each).
One-half hour of individual instruction in the use of all percussion instruments. Requires three hours of practice. Prerequisite: Approval of instructor.
- Mu. 112D, 122D, 212D, 222D. **Applied Music—Percussion.** (2-6). (Credit: 2 semester hours each).
One hour of individual instruction in the use of all percussion instruments. Requires six hours of practice. Prerequisite: Approval of instructor.
- Mu. 1110, 1210, 2110, 2210. **Applied Music—Organ.** (1-3). (Credit: 1 semester hour each).
One-half hour of individual instruction a week. Requires three hours of practice. Prerequisite: Approval of instructor.

- Mu. 1120, 1220, 2120, 2220. **Applied Music—Organ.** (2-6). (Credit: 2 semester hours each).
One hour of individual instruction a week. Requires six hours of practice. Prerequisite: Approval of instructor.
- Mu. 111H, 121H, 211H, 221H. **Applied Music—Harp.** (1-3) (Credit: 1 semester hour each).
One-half hour of individual instruction a week. Requires three hours of practice. Prerequisite: Approval of instructor.
- Mu. 112H, 122H, 212H, 222H. **Applied Music—Harp.** (2-6). (Credit: 2 semester hours each).
One hour of individual instruction a week. Requires six hours of practice. Prerequisite: Approval of instructor.

14. THE DEPARTMENT OF NURSING

- Nursing 118. **Introduction to Nursing.** (4-12) (Credit: 8 semester hours).
Applies nutrition, pharmacology, basic mental health concepts, communications, and manual skills to nursing care. History of nursing and the privileges and responsibilities of the nurse are also considered. Four lecture hours; twelve laboratory hours.
- Nursing 128. **Maternal and Child Health.** (3-16). (Credit: 8 semester hours).
Approaches the family at the establishment phase and follows the family through the expectant, childbearing, pre-school, school, and teenage phase. The inter-relatedness of the family is considered throughout each phase with major emphasis on the normal aspects. Selected deviations from normal are also considered. Content is focused on the implications for nursing. Continued study of the related pharmacology and nutrition. Prerequisite: Psy. 193, Bio. 244, Nsg. 118. Three lecture hours, sixteen laboratory hours.
- Nsg. 135. **Medical-Surgical Nursing I.** (9-18) Credit: 5 semester hours). (6 wks.).
A study of nursing care of medical-surgical patients, including the progressive steps in treatment and recovery. Study of patients includes abnormal conditions of the body, complex nursing techniques, psychological impact, socio-economic factors. Clinical laboratory experience includes care of the pediatric and adult medical-surgical patients. Nine lecture hours, eighteen laboratory hours. Prerequisite: Nsg. 118, Bio. 244, Bio. 254.
- Nsg. 246. **Psychiatric Nursing.** (6-18) (Credit: 6 semester hours). (9 weeks).
A study of principles and techniques involved in prevention and treatment of mental illness. Psychiatric team approach use. Rehabilitative methods are stressed. Study of drugs used in psychiatric therapy included. Clinical laboratory experience entails working with mentally ill patients, individually, in groups, and with their families. Emphasis is placed on the community approach. Several hospitals provide facilities for clinical experiences. Six lecture hours, 18 laboratory hours. Prerequisite: Nsg. 118, Psy. 113, Psy. 193.

Nsg. 256. **Medical-Surgical Nursing II. (6-18)** (Credit: 6 semester hours). (9 weeks).

A study of nursing care during surgical intervention, recovery from anesthesia, and the immediate post operative period. Includes problems in care of chest surgery patients, amputees, and other specified conditions. Related pharmacology, psychological and socio-economic factors are presented. Clinical laboratory experience is in operating room, recovery room, and units. Six lecture hours, 18 laboratory hours. Prerequisite: Nsg. 118, Nsg. 135.

Nsg. 266. **Medical-Surgical Nursing III. (3-9)**. (Credit: 6 semester hours).

A study of medical-surgical patients with emphasis on long term conditions which result in limitation of function. Intensive care, rehabilitation concepts, related pharmacology and diet therapy; socio-economic and community problems are considered. Clinical laboratory experience is in rehabilitation centers, clinics, emergency room. Three lecture hours, Prerequisite: Nsg. 118, 135, 256.

15. THE DEPARTMENT OF PHYSICAL EDUCATION

The Department of Physical Education offers activity courses to meet the requirements in Physical Education for the bachelor's degree, activity courses for elective college credit and activity courses to meet requirements for transfer for majors in Physical Education.

All freshman students should take two semesters of Physical Education. Students planning to attend senior colleges should take four semesters of Physical Education. Courses include a study of the history and rules of the sports with supervised instruction of the basic skills of the activity.

ACTIVITY COURSES FOR MEN

P. E. 131, 141. **Physical Education for Freshman Men.** (Credit: 1 semester hour).

Activities taught may include flag football, basketball, volleyball, tennis, softball, badminton, soccer, and golf.

P. E. 231, 241. **Physical Education for Sophomore Men.** (Credit: 1 semester hour).

Activities taught may include flag football, basketball, volleyball tennis, softball, badminton, soccer, and golf.

P. E. 131, 231. **Weightlifting for Freshman and Sophomore Men.** (Credit 1 semester hour).

A study of the basic fundamental skills and techniques are included in this course.

P. E. 131, 141, 231, 241. **Varsity Basketball for Freshman and Sophomore Men.** (Credit: 1 semester hour).

A course for advanced basketball players who are competing on a collegiate level.

P. E. 131, 141, 231, 241. **Varsity Golf for Freshman and Sophomore Men.** (Credit: 1 semester hour).

A course for advanced golf players who are competing on a collegiate level.

P. E. 131, 141, 231, 241. **Varsity Tennis for Freshman and Sophomore Men.** (Credit: 1 semester hour).

A course for advanced tennis players who are participating on a collegiate level.

P. E. 131, 141, 231, 241. **Varsity Baseball for Freshman and Sophomore Men.** (Credit: 1 semester hour).

A course for advanced baseball players who are competing on a collegiate level.

P. E. 151, 251. **Co-Ed Volleyball.** (Credit: 1 semester hour).

ACTIVITY COURSES FOR WOMEN

P. E. 111, 121. **Physical Education for Freshman Women.** (Credit: 1 semester hour).

This course provides instruction and participation in the fundamentals of beginning tennis, badminton, archery, volleyball, table tennis and modern dance for the development of fitness, skills, knowledge and appreciation for all students. Equipment is furnished by the college. Two days of class instruction and participation per week.

P. E. 211, 221. **Physical Education for Sophomore Women.** (Credit: 1 semester hour).

This course provides advance theory and skills in an elective team or individual sport or activity. Equipment is furnished by the college. Two days of class instruction and participation per week.

P. E. 151, 251. **Co-Ed Volleyball.** (Credit: 1 semester hour).

A course in co-ed volleyball for advanced or adept volleyball players, including a study of rules, techniques and participation. Two days of class instruction and participation per week.

PHYSICAL EDUCATION COURSES

P. E. 163. **Foundations of Physical Education.** (Credit: 3 semester hours). (3-0).

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

P. E. 173. **Personal Hygiene.** (Credit: 3 semester hours). (3-0).

A fundamental course in principles and problems of healthful living as they apply today. Emphasis is placed on causative factors of various diseases, means of transmission and prevention.

P. E. 283. **First Aid.** (Credit: 3 semester hours). (3-0).

The theory and practice in the standard and advanced courses of the American Red Cross in first aid and home and farm study. Students meeting the requirements are awarded the appropriate Red Cross Certificates.

16. THE DEPARTMENT OF SCIENCE

A. Biology

B. Chemistry

C. Physics

A. BIOLOGY

Bio. 114. **Elementary Zoology.** (Credit: 4 semester hours).

A basic course in zoology with special reference to the vertebrate types. Also included are considerations pertaining to the morphology, physiology, embryology, and taxonomy of selected invertebrate phyla representatives. The chemical, physical and biological organization of cells is discussed in detail, with special reference to molecular and cellular biology. Comprehensive laboratory work will be stressed. This course serves as a foundation for advanced work in the field of zoology. Three hours of lecture and three hours of laboratory per week.

Bio. 124. **Elementary Botany.** (Credit: 4 semester hours).

A basic course in botany which includes the morphology, physiology, taxonomy, and ecology of selected phyla representatives. New understandings of the biochemical processes of living cells are incorporated in the course, such as metabolic pathways and their enzymatic transformations, as well as energy storage and utilization. A natural evolutionary sequence leading up to the structure, function, and reproduction in Angio-sperm is presented. Special emphasis is given to the seed plants along with comprehensive field and laboratory exercises. This course serves as a foundation for advanced work in botany. Three hours of lecture and three hours of laboratory per week. Prerequisite: Biology 114, or consent of department.

Bio. 214. **Comparative Anatomy of the Vertebrates.** (Credit: 4 semester hours).

The morphology, physiology and phylogenesis of the vertebrates (craniates). Extensive laboratory work includes the study of selected lower chordates and at least five vertebrates class representatives. Lecture two hours per week and laboratory six hours per week. Prerequisite: Biology 114, 124, or their equivalent and the consent of the department.

Bio. 234. **Introductory Microbiology.** (Credit: 4 semester hours).

The morphology, physiology, and classification of microorganisms. Relation of bacteria to man in agriculture, industry, sanitation, and disease. Laboratory work involving sterilization and pure culture techniques for laboratory culture of bacteria. Three lecture and three laboratory hours per week. Prerequisite: Bio. 114, 124.

Bio. 244-254. **Human Anatomy and Physiology.** (Credit: 8 semester hours).

The study of the anatomy and physiology of the human body in a course of two semesters. During the first semester human anatomy will be stressed with some emphasis placed on histology and cytology. The second semesters' work involves the physiological processes in the body with some emphasis given to bio-chemical pathways. Recommended for

nursing, home economics, and physical education majors. Three hours of lecture and three hours of laboratory work each week of the course. Prerequisite: Bio. 114 or consent of the department. These courses must be taken in sequential order.

B. CHEMISTRY

Chem. 134-144. **Introductory Chemistry.** (Credit: 8 semester hours).

A general course which is designed for those students who do not plan to do further work in science or engineering. First semester: atomic-molecular theory, valence, formulae, chemical equations, gas laws, and solutions.

The second semester: an introduction to the various organic functional groups, systematic organic nomenclature, elementary biochemistry, polymer chemistry, and heterocyclics. Three lecture and three laboratory hours per week.

Chem. 114-124. **General Chemistry and Analysis.** (Credit: 8 semesters hours).

The topics presented in Chemistry 114 include: atomic structure; the periodic classification; the gas laws; reactions involving oxygen and hydrogen; acids, bases, and salts; solutions of electrolytes; ionization, and the halogens. Students with little background in mathematics and the use of the slide-rule are urged to enroll concurrently in E.P. 111. Prerequisite: High School Chemistry or the equivalent, or consent of the department.

Chemistry 124 will emphasize the study of systems involving chemical equilibria and the qualitative analysis of the common cations and anions, using semi-micro techniques in the laboratory. Prerequisite: Chemistry 114. Three lecture and four laboratory hours per week.

Chem. 214. **Quantitative Analysis.** (Credit: 4 semester hours).

The fundamental principles of quantitative analysis are emphasized. Determinations are made involving gravimetric and volumetric methods. Acid-base titrations are carried out. Some of the more modern techniques are utilized, which include spectrophotometric and electroanalytical procedures. Two hours of lecture and six hours of laboratory per week. Prerequisite: A minimum grade of C in Chemistry 124.

Chem. 284. **Organic Chemistry I.** (Credit: 4 semester hours).

The chemistry of aliphatic hydrocarbons, mono- and poly-functional aliphatic compounds, amino acids, proteins, and carbohydrates is studied. Emphasis is placed on the preparation, interrelations, nomenclature, properties, and uses of various compounds. Prerequisite: Chemistry 114-124. Three lecture and four laboratory hours per week.

Chem. 294. **Organic Chemistry II.** (Credit: 4 semester hours).

The chemistry of aromatic compounds, heterocyclic compounds, dyes, terpenes, organo-metallic compounds, and polymers is studied, using the general plan that is followed in Chemistry 284. Prerequisite: Chemistry 284. Three lecture and four laboratory hours per week.

C. PHYSICS

Phy. 114-124. **Physics.** (Credit: 8 semester hours).

A survey course of the physical science fields. Topics are selected from physics, chemistry, geology, astronomy, metrology, and a brief summary of mechanics and heat to illustrate the philosophy and methods of science. This course is designed and taught for the non-science majors providing a working knowledge of the topics covered. A two semester course consisting of three lecture and three laboratory hours per week. Prerequisite: None.

Phy. 184L. **Mechanics and Heat.** (Credit: 4 semester hours).

Open to freshmen. This is a technical course designed to meet the needs of science and engineering students. Topics covered include: vectors and vector products, equilibrium, moments of a force, motion, Newton's second law, . . . and the first and second law of thermodynamics. Prerequisite: Cal. 213 or consent of department. Three lecture and four laboratory hours per week.

Phy. 214. **Electricity and Magnetism.** (Credit: 4 semester hours).

This course is a technical course in electricity and magnetism designed especially for science, engineering, and technical students. Prerequisite: Physics 184L. Class meets for three lecture and four laboratory hours per week.

Phy. 224. **Wave-Motion, Sound, Light.** (Credit: 4 semester hours).

A technical course for students in science, engineering, and other technical fields. Topics covered include: nature and propagation of light, reflection, interference, diffraction, lens, polarization, atomic model of Rutherford and Bohr, natural radioactivity, and nuclear energy. Prerequisite: Physics 184L. Three lecture and four laboratory hours per week.

Phy. 134. **General Physics.** (Credit: 4 semester hours).

An elementary course with materials selected with reference to the needs of premedical, pre dental, and pharmacy students and students of architecture and education. This course is also designed for those students who need a two semester technical course in physics but who do not intend to take additional courses in physics. Fundamentals of classical mechanics, heat, and sound will be covered. Prerequisite: Alg. 113 taken concurrently.

Phy. 144. **General Physics.** (Credit: 4 semester hours).

A continuation of Physics 134. Consists of the study of electricity and magnetism, light, and atomic and nuclear physics. Prerequisite: Physics 134 or consent of the instructor.

Phy. 154. **Introductory Physics.** (Credit: 4 semester hours).

A one semester, 4 hour credit course that is designed for electronic technology students. The topics considered are kinematics, dynamics, vector analysis, heat magnetism, light, atomic and nuclear physics. Em-

phasis will be placed on those topics which will benefit the electronic student. Electricity will not be discussed since the student will be concurrently enrolled in E. T. 104D. Corequisite: E. T. 104D and Alg. 113, or previous electronic and mathematical experience. Three lecture and three laboratory hours per week.

17. THE DEPARTMENT OF SOCIAL SCIENCE

- A. Geography B. Government C. Economics and Sociology
D. History

A. GEOGRAPHY

Geog. 183. **Principles of Geography.** (Credit: 3 semester hours).

Students are introduced to the natural and cultural features within the world scene. Interpretations and descriptions offered into world-wide climatic regions, man's habitat, and adjustments to this habitat. Total world scene studied in text, lectures, selected readings, and field trips. Prerequisite: Sophomore standing or consent of department.

B. GOVERNMENT

Govt. 213, 223. **American National and State Governments.**

Govt. 213. (Credit: 3 semester hours).

A study of the origin and development of our federal system of government; analysis of federal and state constitutions with special attention to the Texas Constitution; federal-state and inter-state relations; and special emphasis on problems of citizenship in a modern democratic society. Three hours per week for 18 weeks. Prerequisite: Sophomore standing.

Govt. 223. (Credit: 3 semester hours).

A study of the functions and services of the government of the United States, the states in general, and Texas in particular. Three hours per week for 18 weeks. Prerequisite: Sophomore standing.

Govt. 113. **Political Ideas and Institutions.** (Credit: 3 semester hours).

A comparative treatment of the present-day governmental systems and conflicting political ideas of some of the foreign states; consideration of the leading democratic and dictatorial regimes. Designed primarily for pre-law, government, and public service majors. Three lecture hours per week for 18 weeks.

C. ECONOMICS AND SOCIOLOGY

Eco. 153. **Consumer Economics.** (Credit: 3 semester hours).

How to make the most efficient use of business goods and services; and insight into buying problems such as use and evaluation of adver-

tising; consumer financial problems such as banking, credit, personal accounting and budgeting, and installment buying. Three hours per week for 18 weeks.

Eco. 183. Principles of Economics I. (Credit: 3 semester hours).

Analysis of the economy as a whole (its organization and basic forces influencing its growth and development); supply - demand relationships; national income, employment, and fiscal policy; money, monetary policy, and economic stability.

Eco. 193. Principles of Economics II. (Credit: 3 semester hours).

Economics of the firm and resource allocation (price and output determination - pure competition, monopolistic competition, oligopoly, monopoly); economic problems (business, agriculture, labor, etc.); international economic relations. Prerequisite: Economics 183.

This course and Economics 183 are recommended for those who plan degrees in law, teaching, and business administration. Prerequisite: Economics 183.

Soc. 113. Principles of Sociology. (Credit: 3 semester hours).

The study of social groups, culture and personality with emphasis on the relationship of man to his institutions, social interaction, social changes, and pattern of behavior.

Soc. 123. Social Problems. (Credit: 3 semester hours).

Specific conditions, problems, and issues; poverty, unemployment, old age, health, family, crime, juvenile delinquency, race, and nationality. Prerequisite: Sociology 113.

Soc. 213. Marriage and Family Relationships. (Credit: 3 semester hours).

A cultural and practical approach to the problems of courtship, marriage, and parenthood with emphasis on the understanding of the problems and methods of adjustment used by a society undergoing rapid social change.

Soc. 223. Contemporary Social Problems. (Credit: 3 semester hours).

Preparation for well-informed participation in public affairs through objective examination of existing social arrangements and traditional social institutions. Three hours per week for 18 weeks.

Soc. 233. Criminology. (Credit: 3 semester hours).

Current trends, nature and causes of crime. Indexes of crime, perspectives and methods in criminology, psychopathy and crime, culture areas and crime, processes in criminal behavior. Sociological aspects of criminal law and procedure. Three lecture hours per week for 18 weeks.

Soc. 243. Penology. (Credit: 3 semester hours).

Punishment, treatment and prevention of criminality. Sociological analysis of probation, parole and prison administration. Three lecture hours per week for 18 weeks.

D. HISTORY

H. 113. Western Civilization to 1660. (Credit: 3 semester hours).

The chief political, social and intellectual developments of occidental civilization from the earliest human cultures to 1660. The origins of languages, literature, governments, and economic and social practices are included.

H. 123. Western Civilization since 1660. (Credit: 3 semester hours).

This course is a continuation of H. 113. Prerequisite: None.

H. 133, 143. History of Latin America. (Credit: 3 semester hours each semester).

H. 133. Spanish and Portuguese colonies from discovery to independence.

H. 143. Latin American republics since independence. (Formerly offered as **History of the Americas, 1949-64.**)

H. 153. History of England and the British Empire. (Credit: 3 semester hours).

A survey course of the history of England and the British Empire; covers the origins of language and literature; the growth of the British constitution; the rise of Parliament; the emergence of the Anglican Church; and the acquisition of overseas colonies.

H. 163. History of England and the British Empire. (Credit: 3 semester hours).

This course centers upon the decline of the royal authority and the development of cabinet government; the problems of imperialism and the maintenance of the Pax Britannica; the Industrial Revolution; the Reform Movement; and the growth of democracy.

(Both English history courses are especially designed to aid pre-legal students and those majoring in English, government, and American History.)

H. 173L. History of Texas to 1865. (Credit: 3 semester hours).

A study of the growth and development of the Texas area from 1500 until 1865: the Spanish colonial period; the French influence; the end of Spanish rule; the Mexican colonial period; and analysis of the Revolution; the Republic era; the Statehood years; and the role of Texas in the Civil War.

H. 173M. History of Texas since 1865. (Credit: 3 semester hours).

An analysis of cultural, social, industrial, and political developments in Texas from 1865 to the present. Emphasis will be placed on the Reconstruction period, political history since the Civil War, and the emergence of the modern state of Texas. Studies of governors and their administrations will be made.

H. 184, 192. **History of Texas.** (Credit: 6 semester hours).

This is the same course as History 173L and 173M. It was divided as follows: History 184, **History of Texas to 1890** and History 192, **History of Texas Since 1890.** Richardson, **The Lone Star State** is used as a text; readings, reports, research paper, interpretative assignments, and current happenings.

H. 183. **The United States to 1865.** (Credit: 3 semester hours).

European forces; Spanish and Portuguese conquest in the Americas; English, French, and Dutch beginnings; accomplishments of nationalistic groups; revolution in British colonies; War of Independence; establishment of the new nation; westward movement and frontier influence; problems of the formative period; cultural and constitutional growth; internal and international relations. This course is required for graduation from all state colleges in Texas. Open to Freshmen with departmental permission.

H. 193. **The United States since 1865.** (Credit: 3 semester hours).

Continuation of History 183. Growth of national ideals; movement for individual freedom; party government and public interests; industrial development; labor problems and agrarian unrest; changing international policies; war and peace; problems of agriculture, business, and government; cultural progress and attempts at social cooperation; current world problems and trends. This course is required by all state colleges in Texas for graduation. Open to Freshmen with departmental approval.

18. THE DEPARTMENT OF SPEECH

SPEECH

S. 113. **Fundamentals of Speech.** (Credit: 3 semester hours).

Speech 113 is the prerequisite to Speech 123. The Fundamentals of Speech consists of the study of the importance of speech as an aid in social adjustment; the study of the vocal mechanism and techniques of voice control, including a brief study of common speech defects and the attitude of the lay person toward these defects; the improvement of articulation and pronunciation; the study of the use of bodily activity and its relation to effective speaking; vocabulary development; the study of the general ends of speech and preparation toward the achieving of these ends.

S. 123. **Public Speaking.** (Credit: 3 semester hours).

Public Speaking is devoted to the methods of organization and the techniques of delivery of the platform speeches. Prerequisite: Speech 113.

S. 173. **Oral Interpretation.** (Credit: 3 semester hours).

Oral Interpretation is the study of platform interpretation of literature. Emphasis will be placed upon improvement in voice, pronunciation, and enunciation for interpreting lyric poetry, narrative prose and poetry, descriptive essay, monologue, and dramatic scenes. This course is particularly recommended for English and elementary majors. Prerequisite: Speech 113.

S. 133. **Business Speech.** (Credit: 3 semester hours).

Business Speech is devoted to the study of the techniques of technical reporting (i.e., speeches to instruct, speeches of special reporting, and speeches for general information and guidance for personnel); the study of techniques of problem-solving through public discussion (i.e., panel discussion, symposium, etc.); the study of the techniques of parliamentary law for purposes of learning to preside at various meetings and conducting business. Prerequisite: Consent of the department.

S. 181. **Theatre Activities.** (Credit: 1 semester hour).

Students are given the opportunity to participate in campus entertainment activities. In addition, he is given a brief survey of the dramatic arts. He must complete activities in two stage presentations, one "on stage" and one in production. He must also do an investigation project chosen from the history of costume, a type of drama and the playwrights, make-up projects or other approved projects.

S. 191. **Speech Activities.** (Credit: 1 semester hour).

Students are given an opportunity to participate in public speaking programs. He must appear in two such programs and do investigation on one famous successful platform speaker.

H. 184, 192. **History of Texas.** (Credit: 6 semester hours).

This is the same course as History 173L and 173M. It was divided as follows: History 184, **History of Texas to 1890** and History 192, **History of Texas Since 1890.** Richardson, **The Lone Star State** is used as a text; readings, reports, research paper, interpretative assignments, and current happenings.

H. 183. **The United States to 1865.** (Credit: 3 semester hours).

European forces; Spanish and Portuguese conquest in the Americas; English, French, and Dutch beginnings; accomplishments of nationalistic groups; revolution in British colonies; War of Independence; establishment of the new nation; westward movement and frontier influence; problems of the formative period; cultural and constitutional growth; internal and international relations. This course is required for graduation from all state colleges in Texas. Open to Freshmen with departmental permission.

H. 193. **The United States since 1865.** (Credit: 3 semester hours).

Continuation of History 183. Growth of national ideals; movement for individual freedom; party government and public interests; industrial development; labor problems and agrarian unrest; changing international policies; war and peace; problems of agriculture, business, and government; cultural progress and attempts at social cooperation; current world problems and trends. This course is required by all state colleges in Texas for graduation. Open to Freshmen with departmental approval.

18. THE DEPARTMENT OF SPEECH

SPEECH

S. 113. **Fundamentals of Speech.** (Credit: 3 semester hours).

Speech 113 is the prerequisite to Speech 123. The Fundamentals of Speech consists of the study of the importance of speech as an aid in social adjustment; the study of the vocal mechanism and techniques of voice control, including a brief study of common speech defects and the attitude of the lay person toward these defects; the improvement of articulation and pronunciation; the study of the use of bodily activity and its relation to effective speaking; vocabulary development; the study of the general ends of speech and preparation toward the achieving of these ends.

S. 123. **Public Speaking.** (Credit: 3 semester hours).

Public Speaking is devoted to the methods of organization and the techniques of delivery of the platform speeches. Prerequisite: Speech 113.

S. 173. **Oral Interpretation.** (Credit: 3 semester hours).

Oral Interpretation is the study of platform interpretation of literature. Emphasis will be placed upon improvement in voice, pronunciation, and enunciation for interpreting lyric poetry, narrative prose and poetry, descriptive essay, monologue, and dramatic scenes. This course is particularly recommended for English and elementary majors. Prerequisite: Speech 113.

S. 133. **Business Speech.** (Credit: 3 semester hours).

Business Speech is devoted to the study of the techniques of technical reporting (i.e., speeches to instruct, speeches of special reporting, and speeches for general information and guidance for personnel); the study of techniques of problem-solving through public discussion (i.e., panel discussion, symposium, etc.); the study of the techniques of parliamentary law for purposes of learning to preside at various meetings and conducting business. Prerequisite: Consent of the department.

S. 181. **Theatre Activities.** (Credit: 1 semester hour).

Students are given the opportunity to participate in campus entertainment activities. In addition, he is given a brief survey of the dramatic arts. He must complete activities in two stage presentations, one "on stage" and one in production. He must also do an investigation project chosen from the history of costume, a type of drama and the playwrights, make-up projects or other approved projects.

S. 191. **Speech Activities.** (Credit: 1 semester hour).

Students are given an opportunity to participate in public speaking programs. He must appear in two such programs and do investigation on one famous successful platform speaker.

VIII. ADULT EDUCATION

A. OBJECTIVES

The Department of Adult Education has been created as a service department for the adults of Alvin and the surrounding territory. The prime objective of the department is to offer educational opportunities to enable adults to meet the constantly changing requirements for successful community living. A program of services in these areas is proposed:

Advanced adult academic education of a secondary and post-secondary level including technical and collegiate education.

General education in the fields of intercultural and international understanding through conferences, courses, forums, lectures and suitable media.

Basic elementary education for the foreign and native born, including training for naturalization and citizenship.

Education in the fields of homemaking and family relations.

Education in vocational and prevocational training.

Opportunities of recreational and hobby type nature conducive to enriched personal and community living.

Education in economic, social and civic problems.

Other pertinent areas.

To assure a close tie with the community, the Board of Education has appointed a Community Advisory Committee drawn from thirty related organizations and interests. This Community Advisory Committee meets upon need to determine the interests, needs, facilities, and opportunities for adult education and recreation and how the program is to be financed.

In addition, a Resource Committee is drawn from the college faculty to provide professional and technical advice and assistance.

B. FOUR AREAS

The program of educational services to adults has been implemented under four presentations:

1. Academic Program

Adults may acquire academic work and collegiate credit through the regular day or evening program of the college.

Tuition for academic work done during the evening hours is the same as for that done during the day. (See tuition chart.)

It is advised that students with full time employment not carry more than nine semester hours of work per term.

All departments of the college represented in the curriculum offer courses as requests are expressed. A minimum of ten students is required for an academic class.

2. High School Equivalency

Adults may earn an Alvin High School Equivalency Diploma through the Adult Education Department of the Alvin Junior College. This program does not attempt to take the student through a complete high school program but it does (a) establish academic ability equivalent to twelfth grade graduates and (b) provide review and additional background in subject-matter areas practical to adult life. Briefly, the student shows high school education equivalency by successfully passing 1) entrance tests 2) four courses, (English, mathematics, government and reading) and 3) the same comprehensive tests taken by high school graduates.

Entrance Requirements

The applicant must:

- 1) Be at least 21 years old. Exception: He may be less than 21 years of age if he has completed the Alvin Junior College Basic Education Equivalency Program or if he is a veteran.
- 2) Be a United States citizen.
- 3) Have completed at least the 8th grade.
- 4) Spend approximately 10 clock hours (3 evenings) in taking General Education Development Tests and make a score of at least 35 on each test or an average of at least 45 on the set of 5 tests.

Program

- 1) Time required:
1 academic year of 2 semesters—beginning with either Fall or Spring semester—2 nights a week, 3 hours a night.

2) Course:

Fall semester, English and mathematics.
Spring semester, government and reading.

3) Tests:

General Education Development Tests (for entrance)
Covering four courses taken

Cooperative Tests (scores to equal norm established by 12th grade graduates)

4) Diploma:

Completion of the program will be certified by a high school diploma with the notation "having completed in a satisfactory manner the prescribed high school equivalency program for adults and having attained scores equivalent to that of Alvin High School seniors on American Council on Education general achievement tests."

5) Graduation:

Both Fall and Spring semester high school equivalency graduates will be recognized at Alvin's annual graduation exercises in May.

Costs (payable by semester)

- 1) \$4.00 Tests fee; activity fee \$3.00.
- 2) \$30.00 Tuition (\$15.00 per course)—Total per year, \$60.00.
- 3) \$8.00 Books and supplies (estimate).
- 4) Diploma \$4.25—Payable at beginning of semester of graduation.

3. BASIC (ELEMENTARY) EDUCATION EQUIVALENCY

Arrangements have been made for adults desiring to establish educational equivalency in elementary school subject matter. Upon entrance to the program the applicants will be given standardized achievement tests in order to determine their grade level. The students will be advanced as rapidly as they complete levels of training. Having completed the requirements for basic (elementary) equivalency, the students will be recommended for the Certificate of Basic Education Equivalency. They will then be eligible to enter the Alvin Junior College program for high school equivalency. Applicants must be at least 18 years old.

The fees include: \$3.00 for the testing program, tuition of \$18.00 per three month period, and payment for books and supplies. Advance application is necessary.

4. SHORT UNIT COURSES

These courses are designed for those adult students wishing to give only a short time to the certain studies and activities of practical or avocational value. Most of the classes meet once or twice a week for four or six weeks. The registration fees vary according to the number of actual clock hours of instruction.

Because the registration fees are low and classes are often continued on the basis of the number of students in the early enrollment, there are no refunds or transfers of fees. Equipment is usually provided by the college and students furnish their own materials unless other arrangements are agreed to. Where expensive materials, equipment or services are required for certain classes, a special fee per student has been charged. No grades are given; however, certificates of completion are issued to those who have been in full attendance and who have successfully completed projects during the allotted class time. Each course of 18 clock hours length carries with it 1 semester hour terminal credit with the college, provided it meets the approval of the Dean and the Registrar of the college.

If a short course other than those that are offered through the year is desired, it will be arranged if requested by as many as ten students, provided an instructor and facilities are available.

ALVIN

JUNIOR

COLLEGE

Alvin, Texas

9/1/71

Published at Alvin, Texas, for
use by students, faculty, education-
al institutions, and business firms.

**For:
1971-72**

AREAS OF TRAINING IN TECHNOLOGY

In our rapidly expanding technological era, the community junior college has accepted the responsibility of offering educational training for a great number of students in the technical education fields. This type of training, offering students a program that will lead into an entry into a vocation and full citizenship responsibilities after the two years of formal education, is a necessity for many students, and therefore is felt to be an outstanding service in these areas.

Technical education is most often thought of as a highly organized post-high school training program designed to prepare men and women for work in occupations between that of the craftsman and the professional engineer, and most closely linked to the engineer. The technician is an important member of the industrial team and works with both groups.

The chief purpose of the training program is to prepare men and women for responsible positions in the semi-professional occupations. Also the program endeavors to offer intellectual breadth and personal enrichment as well as occupational proficiency. The total curricula is organized on a high quality level, with the aim in mind of providing needed services to those many students interested in the technical education professions.

OBJECTIVES

GENERAL:

- (1) The technical curriculum at Alvin Junior College aims to: Prepare the graduate of the program to be employable and immediately productive in one of six fields: Computer Technology, Nursing, Police Administration Technology, Secretarial Science, Drafting Technology, Electronics Technology.
- (2) Advance the student to positions of increasing responsibility by means of work experience and the taking of advanced technical studies.
- (3) Develop within each individual proper attitudes and responsibilities relative to his chosen field of work.
- (4) Develop and encourage the individual to participate in government on the local and state level and to assume other community responsibilities.

CRITERIA:

The Technical Division at Alvin Junior College has based the criteria for establishing technical training for its students on those which were outlined in seven regional conferences by the Bureau of Educational Assistance Programs. U. S. Office of Education.

- (a) **Facility with mathematics:** The student in the technical division should develop an ability to use algebra and trigonometry as tools in the application of ideas that make use of scientific and engineering principles. In addition, he should gain an understanding of, though not necessarily facility with, higher mathematics through analytical geometry, calculus, and differential equations, according to the requirements of the technology.
- (b) **Proficiency in the application of physical science principles:** Studies will include basic concepts and laws of physics and chemistry that are pertinent to the individual's field of technology.
- (c) **Understanding materials:** This will include also an understanding of processes commonly used in the technology in which the student is enrolled for studies.
- (d) **Knowing fields of specialization:** The course should give each student an understanding of the engineering and scientific activities that distinguish the technology of the field. The degree of competency and the depth of understanding should be sufficient to enable the individual to do such work as detail design using established procedures.
- (e) **Communication skills:** The student must learn definitely to interpret, analyze, and transmit facts and ideas graphically, orally, and in writing.
- (f) **A citizen's role:** Our democracy depends on informed citizens who take an active part in their community and serve whenever they can to further the better life in their home communities. The core of studies will include studies which are designed to make the student proud of advancements made in the United States and in the heritage of our country. In addition, a special effort will be made to equip the student to be a contributing citizen.

COMPUTER SCIENCE TECHNOLOGY

This program is designed to develop a technician capable of progressing to such positions as Senior or Chief Tabulator, Tabulating Supervisor, Systems Analyst, or Programmer. On completion of the total program the student will receive a Certificate of Technology in Data Processing, in addition to the Associate in Applied Science Degree.

COURSES: First Year

Composition and Rhetoric, English 113	(3)
Finite Mathematics, Math 183	(3)
The United States to 1865, History 183	(3)
Introduction to Computer Science, C.S. 114	(4)
Computer Operation, C.S. 113D	(3)
Analysis, Math 193	(3)
The United States Since 1865, History 193	(3)

- Computer Programming I, C.S. 113G, Computer Programming II, C.S. 213D, or Data Processing Applications, C.S. 213C (3)
- Composition and Rhetoric, English 123 (3)
- Electives: (Algebra 113, Plane Trigonometry 123, C.S. 113T, C.S. 113F, Bus. 113) (6)

Second Year

- Report Writing of Technicians, English 133 or Survey of Literature, Part I, English 213 (3)
- Principles of Economics I, Eco. 183 (3)
- American National and State Governments, Govt. 213 (3)
- Fundamentals of Speech, S. 113 (3)
- American National and State Governments, Govt. 223 (3)
- Accounting Theory I, Acct. 213 (3)
- Computer Programming I, C.S. 113G, Computer Programming II C.S. 213D, Data Processing Applications C.S. 213C, or Computer Programming IV, C.S. 213G (6)
- Accounting Theory II, Acct. 223 (3)
- Electives: (C.S. 213F, Linear Alg. 213, Law 213, Law 223) (3)

CREDIT: 60-66 semester hours **DIPLOMA:** Associate in Applied Science Degree

Suggested Electives: Economics 193, Government 223, C.S. 113T, C.S. 213F, Law 213, Accounting 283, C.S. 203G.

DRAFTING TECHNOLOGY

The drafting technician is an essential member of the technician-engineering team. He should be proficient in both technical knowledge and skills involving drawing instruments as schematics, working drawings, and blueprints are developed. This program provides an opportunity for students to specialize in several phases of drafting, with proper qualifications for employment as Junior Draftsman in the fields of drafting technology.

COURSES: First Year

- Fundamentals of Drafting, Dft. 113 (3)
- Composition and Rhetoric, Eng. 113 (3)
- Technical Mathematics I, Math 103D (3)
- General Physics 134 (4)
- Descriptive Geometry, D.G. 183 (3)
- Machine Drafting, Dft. 104D (4)
- Report Writing for Technicians, Eng. 133 (3)
- Technical Mathematics II, Math 103E (3)
- General Physics 144 (4)

Second Year

- Architectural Drawing, A.D. 113 (3)
- Construction Drafting, Dft. 204D (4)
- Government 213 (3)
- History 183 (3)
- Pipe Drafting, Dft. 204E (4)
- Surveying, E.D. 102 (2)
- History 193 (3)
- Elective * (9)

CREDIT: 60-65 semester hours **DIPLOMA:** Associate in Applied Science Degree

*Suggested Electives: Dft. 203F, Structural Drafting; Machine Shop 183; Psychology 113; Sociology 113; Economics 183; Speech 113 or 123; Geography 183; Government 223.

ELECTRONICS TECHNOLOGY

The electronics technician prepares himself for employment in the area of production and maintenance, research, medical laboratory work, and as assistants in the engineering fields of radio, television, communication, and electronic equipment sales. The curriculum is so designed to provide a basic general education in mathematics, science, English, and human relations; specialized instructions in electronics theory and circuits, vacuum tubes, transistors, amplifiers, power supplies, transmitters and test equipment applications; and practical demonstrations of industrial electronic central equipment. This program may lead to a bachelor's degree in technology.

COURSES

Freshman Year

First Semester		Second Semester	
ET 104D	4 hrs.	ET 104E	4 hrs.
ETM 103D	3 hrs.	ET 104K	4 hrs.
Eng. 113	3 hrs.	ETM 103E	3 hrs.
Dft. 113	3 hrs.	CS 114	4 hrs.
Phy. 154	4 hrs.		

Sophomore Year

First Semester		Second Semester	
ET 204L	4 hrs.	ET 204M	4 hrs.
ET 204D	4 hrs.	ET 204T	4 hrs.
ET 204R	4 hrs.	ET 204G	4 hrs.
ETM 203G	3 hrs.	E 133	3 hrs.

Credit 60-66 semester hours Diploma: Associate in Applied Science

LAW ENFORCEMENT & POLICE ADMINISTRATION

THE ASSOCIATE IN SCIENCE DEGREE program in Police Administration is designed to meet the needs of persons seeking employment with or promotion in public or private agencies concerned with maintaining public safety, preventing crime, apprehending and rehabilitating criminals, and social welfare.

Urbanization is fast becoming a fact of life in the United States. It is already a fact which underscores not only a growth of population, with its many problems but also developments in social welfare agencies, transportation, communications, and in science. The growth of population centers has had a profound impact on police work of all types.

This program is being planned by the administration of Alvin Junior College to fill an apparent need in Brazoria County and in the counties which adjoin it. The program is outlined for a two-year period of study. Credit may or may not transfer to a senior college.

A. POLICE ADMINISTRATION

COURSES: First Year	Credit
P. Ad. 113, Introduction to Law Enforcement	(3)
P. Ad. 133, Legal Aspects of Law Enforcement	(3)
Soc. 233, Criminology	(3)
P. Ad. 123 Criminal Investigation	(3)
E. 113, Composition and Rhetoric I	(3)
E. 123, Composition and Rhetoric II	(3)
H. 183, The United States to 1865	(3)
H. 193, The United States Since 1865	(3)
Soc. 113, Principles of Sociology	(3)
Soc. 123, Social Problems	(3)
Psy. 113, General Psychology	(3)
P. E. 131, Physical Education for Men	(1)
P. E. 141, Physical Education for Men	(1)
O. 101, Freshman Orientation	(1)
COURSES: Second Year	
P. Ad. 223. Introduction to Police Administration	(3)
P. Ad. 233, Police Operations	(3)
P. Ad. 243. Community Relations and Law Enforcement	(3)
Soc. 243. Penology	(3)
Govt. 213, American and State Government	(3)
Govt. 223, American and State Government	(3)
E. 213, Survey of Literature or	
S. 113, Fundamentals of Speech	(3)
Science or	(8)
Math	(6)
CREDIT: 60-66 semester hours DEGREE: Associate in Science	

B. CRIMINOLOGY AND CORRECTIONS

The Correctional Program is offered for students interested in work with the Texas Department of Corrections and with juveniles in institutions. This program is provided on both a terminal and transfer basis. It is designed to lead to an Associate of Arts Degree in Correctional Science. The program is outlined for a two-year period of study.

Courses: First Year	Credit
P. Ad. 113, Introduction to Law Enforcement	3
P. Ad. 133, Legal Aspects of Law Enforcement	3
Soc. 233, Criminology	3
E. 113, Composition and Rhetoric I	3
E. 123, Composition and Rhetoric II	3
H. 183, The United States to 1865	3
H. 193, The United States Since 1865	3
Soc. 113, Principles of Sociology	3
Soc. 123, Social Problems	3
Psy. 113, General Psychology	3
P.E. 131, Physical Education for Men	1
P.E. 141, Physical Education for Men	1
O. 101, Freshman Orientation	1
Courses: Second Year	
Soc. 243, Penology	3
P.Ad. 253, Legal Aspects of Corrections	3
P.Ad. 263, Probation and Parole	3
P. Ad. 273, Juvenile Delinquency	3
P.Ad. 283, Understanding Human Behavior	3
P. Ad. 293, Interviewing and Counseling	3
E. 213, Survey of Literature	3
E. 223, Survey of Literature II or	
S. 113, Fundamentals of Speech	
Govt. 213, American and State Government	3
Govt. 223, American and State Government	3
Elective	3

C. CRIMINOLOGY AND CORRECTIONS

CERTIFICATE PROGRAM

A Certificate is offered in Criminology and Corrections, and represents the completion of thirty hours of approved course work. The Certificate program is designed for mature persons on the job working in the area of corrections. This student earns no degree and his registration records are stamped "Certificate only"-non-transferable credit. In the event that any student who has first enrolled in a "Certificate only" program desires to thereafter enter a degree program, he must meet all prerequisites and requirements met by the degree student.

A certificate student will take seven courses from Group I and three courses from Group II. Course selection will be determined by consultation with the Department Chairman, after he is familiar with the student's background, abilities, and goals.

GROUP I

Penology
Probation and Parole
Legal Aspects of Corrections
Introduction to Law Enforcement
Criminology
Legal Aspects of Law Enforcement
Principles of Sociology
Social Problems
Juvenile Delinquency
Introduction to Social Work

GROUP II

Composition and Rhetoric
General Psychology
Abnormal Psychology
Counseling
American and State Government

NURSING TECHNOLOGY

The aim of the Associate degree program in nursing is to prepare the graduate to give direct patient care, under supervision in beginning staff positions, in hospitals and other health-care facilities. The program, technical in nature and terminal in design, includes a background in general education and skills related to patient care.

The graduate is competent to function independently in nursing situations involving hygienic, comfort, and safety measures, interpersonal relations and problem-solving skills. He performs delegated medical activities. In complex nursing situations, the practitioner must have the leadership and guidance of the professional nurse. (He is not prepared for leadership positions.)

At the completion of the twenty-four calendar month program, the graduate is qualified to take the State Board Test Pool Examination to become a Registered Nurse (RN) in Texas.

The program is fully accredited by the Board of Nurse Examiners for the State of Texas. Interested students must be accepted by Alvin Junior College through the Dean of Admissions. If accepted in the college, the applicant will be referred to the Nursing Department.

Cost: Approximately two hundred dollars per semester will cover the college tuition, laboratory fees, books, and uniforms.

Hospitalization insurance, malpractice insurance, and transportation to and from the various health agencies are the responsibility of the students.

Some loan funds are available for nursing students through the Financial Aids Office.

REQUIREMENTS FOR ADMISSION:

1. To be admitted to the nursing program a student must fulfill all the admission requirements for enrolling in Alvin Junior College. Contact Dean of Admissions.

2. A student entering college for the first time will be required to take ACT (American College Testing Program), a Reading Placement test, and other admission tests. A prospective student for the Nursing Program must achieve a composite ACT score of 14. If a prospective student is unable to achieve a composite ACT score of 14, the following courses may be recommended:

E. 103. **Fundamentals of Writing**
Math 111. **College Arithmetic**
Psy. 133. **Effective Reading and Studying**
Chem. **Basic Chemistry**

After successful completion of respective courses, a second ACT test may be administered.

Transfer students with over nine semester hours credit, with an average grade of "C" in all courses will be exempt from this requirement.

3. An application may be secured from the Department of Nursing.
4. Since classes must be limited in number, it is advisable for qualified students to make application in the spring before the fall semester.
5. A complete physical examination which includes chest x-ray, serology and immunizations for small pox, poliomyelitis and tetanus, is required.
6. An interview of prospective applicant is required.
7. Advanced standing may be secured by examination. The application for registration by examination and the college transcript, must indicate the time spent in nursing/military programs. A student who desires to take advanced standing examinations in nursing will follow the policy of the college.

POLICIES:

1. After a student has enrolled the required nursing courses must be completed in proper sequence.
2. Prior to entering the Nursing Program a student may take several or all of the general liberal arts courses required in the Nursing Program.
3. Any required course in the biological sciences, completed more than five years previous to the time the student is accepted, may not satisfy degree requirements.
4. No grade below a "C" will be acceptable in nursing courses.
5. A student may be terminated from the program if clinical experience (hospital) performance is unsatisfactory. This is determined by the clinical instructor who works with the student in the affiliating hospital area and the Director of Nursing Education.
6. You are required to earn at least 12 semester hours at Alvin Junior College.

RECOMMENDATIONS:

1. At least three hours of preparation are recommended for each hour in lecture class.
2. In this modern day typewritten communication is a standard requirement. People who type well will find the skill to be especially helpful. All students are urged to learn to type for their own personal use.

NURSING ASSISTANT'S PROGRAM

The aim of the Nursing Assistant's Program is:

1. To provide necessary skills and knowledge for performance on the nursing team.
2. To enable an individual working under supervision of a registered nurse to give a wide variety of patient care.

Theory is integrated with supervised clinical practice.

Cost: Approximately \$37.00, includes tuition, name pin and textbook.

Length of Course: (16 weeks) 1 semester.

Certificate is awarded upon completion of the course. The individual is capable of functioning as an orderly or nurse aide in hospital, nursing homes, or a health agency.

Interested students may apply to the Dean of Admissions.

ASSOCIATE IN APPLIED SCIENCE DEGREE IN NURSING

SUMMER SEMESTER		Lec. Hrs.	Lab. Hrs.	Cr. Hrs.
Eng. 113.	Composition and Rhetoric	9	0	3
Psy. 113	General Psychology	9	0	3
				<u>6</u>

FALL SEMESTER		Lec. Hrs.	Lab. Hrs.	Cr. Hrs.
Nsg. 118.	Introduction to Nursing	4	12	8
Psy. 193	Human Growth and Development	3	0	3
Bio. 244.	Human Anatomy and Physiology	3	3	4
Eng. 123.	Composition and Rhetoric	3	0	3
				<u>18</u>

SPRING SEMESTER		Lec. Hrs.	Lab. Hrs.	Cr. Hrs.
Nsg. 128	Maternal and Child Health	3	16	8
Bio. 254.	Human Anatomy and Physiology	3	3	4
Soc. 113	Principles of Sociology	3	0	3
				<u>15</u>

SUMMER SEMESTER		Lec. Hrs.	Lab. Hrs.	Cr. Hrs.
Nsg. 135	Medical-Surgical Nursing I, 6 wks	9	8	5
				<u>5</u>

FALL SEMESTER		Lec. Hrs.	Lab. Hrs.	Cr. Hrs.
Nsg. 246.	Psychiatric Nursing (9 wks.)	6	18	6
Nsg. 256	Medical-Surgical Nursing II	6	18	6
Bio. 234.	Introductory Microbiology	3	3	4
				<u>16</u>

SPRING SEMESTER		Lec. Hrs.	Lab. Hrs.	Cr. Hrs.
Nsg. 266.	Medical-Surgical Nursing III	3	9	6
Electives				<u>9</u>
				<u>15</u>

TOTAL CREDIT NURSING HOURS — 39
 TOTAL CREDIT LIBERAL ARTS HOURS 36
 TOTAL — 75

SECRETARIAL SCIENCE & OFFICE OCCUPATIONS

The student who is interested in secretarial science and office occupations is offered a two-year program as well as two one-year programs. With the completion of any of the three programs, the student is qualified for a terminal certificate.

The curriculum is designed to offer a background in general education courses which will prepare the student to adequately discharge the responsibilities of secretarial work, clerical occupations, and general business employment. The program has been developed in response to the needs of office workers in the fast-growing Gulf Coast area. The demand for adequately prepared secretaries with competency in shorthand and typing skills, as well as knowledge of current office equipment, well exceeds the supply.

Classes are open also to those who wish to do refresher work in a specific course or two rather than to pursue a full college program.

ONE-YEAR SECRETARIAL PROGRAM

First Semester	Credit	Second Semester	Credit
Accounting 103	3	Business 173	3
Business 113	3	Business Mathematics 113	3
English 113 or 103	3	Business Machines 183	3
Shorthand 153 or 163	3	Shorthand 163 or 213	3
Typing 153 or 163	3	Typing 163 or 213	3
Physical Education	1	Physical Education	1

ONE-YEAR CLERICAL PROGRAM

Accounting 103	3	Business 173	3
Business 113	3	Business Mathematics 113	3
Business Machines 183	3	Business 193	3
Typing 153 or 163	3	Typing 163 or 213	3
*Elective	3	*Elective	3

TWO-YEAR SECRETARIAL PROGRAM

Freshman

First Semester	Credit	Second Semester	Credit
Accounting 103	3	Business 173	3
Business 113	3	Business Mathematics 113	3
English 113 or 103	3	Business Machines 183	3
Shorthand 153 or 163	3	Shorthand 163 or 213	3
Typing 153 or 163	3	Typing 163 or 213	3
Physical Education	1	Physical Education	1

Sophomore

First Semester	Credit	Second Semester	Credit
Business 193	3	Business Law 213	3
Shorthand 223 or 233	3	Business 233	3
Economics 183	3	C. S. 114	3
Government 213	3	*Electives	6
S. 133	1	Physical Education	1
Physical Education	1		

*Recommended Electives: C. S. 113T and Eco. 153

POST-SECONDARY VOCATIONAL - TECHNICAL EDUCATION

Voc. Ed. 001. Pre-vocational and Technical English I. (3-0) Credit: 0 semester hours).

A course designed for students with deficiencies in English. Objective is to prepare the student for vocational or technical studies in the college program.

Voc. Ed. 002. Pre-vocational and Technical Math I. (3-0) (Credit: 0 semester hours).

A course of study for students who are deficient in mathematics. Objective is to prepare the student for vocational and technical studies in the college program.

Voc. Ed. 003. Pre-vocational and Technical Reading I. (3-0) (Credit: 0 semester hours).

A course of study for students who are deficient in reading. Emphasis upon speed reading, vocabulary, and comprehension, using Science Research materials and reading laboratory. Objective is to prepare the student for vocational and technical studies in the college program.

Voc. Ed. 004. Pre-vocational and Technical Government and Social Studies I. (3-0) (Credit: 0 semester hours).

A course of study for students who are deficient in social studies and government. Objective is to prepare the student for vocational and technical studies in the college program.

TECHNOLOGY

TUITION AND FEES

For tuition purposes, the students who enroll in Alvin Junior College will be classified as follows:

1. **In-District**—Students who are residents of the Alvin Independent School District.
2. **Out-Of-District**—Students whose homes are not in the Alvin Independent School District but who are residents of Texas.
3. **Out-Of-State**—Students whose homes are outside the State of Texas.

Tuition:

At the time of publication tuition rates had not been set by the Legislature. A separate publication listing all tuition charges and fees will therefore be published for distribution prior to registration.

Minimum tuition fees for in-district students will not be less than \$4 per semester hour with the total minimum tuition charge for any student not less than \$25.

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