

ALVIN JUNIOR

COLLEGE

BULLETIN OF INFORMATION

AND

ANNOUNCEMENT OF COURSES

DAY COLLEGE

EVENING COLLEGE

SESSION 1964-1965

With Announcements for 1965-66

No. 12

COLLEGE CALENDAR

ALVIN JUNIOR COLLEGE

1964

JANUARY							APRIL							JULY							OCTOBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
5	6	7	8	9	10	11	5	6	7	8	9	10	11	5	6	7	8	9	10	11	4	5	6	7	8	9	10
12	13	14	15	16	17	18	12	13	14	15	16	17	18	12	13	14	15	16	17	18	11	12	13	14	15	16	17
19	20	21	22	23	24	25	19	20	21	22	23	24	25	19	20	21	22	23	24	25	18	19	20	21	22	23	24
26	27	28	29	30	31	26	27	28	29	30	26	27	28	29	30	31	25	26	27	28	29	30	31				

1965

JANUARY							APRIL							JULY							OCTOBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
3	4	5	6	7	8	9	4	5	6	7	8	9	10	4	5	6	7	8	9	10	3	4	5	6	7	8	9
10	11	12	13	14	15	16	11	12	13	14	15	16	17	11	12	13	14	15	16	17	10	11	12	13	14	15	16
17	18	19	20	21	22	23	18	19	20	21	22	23	24	18	19	20	21	22	23	24	17	18	19	20	21	22	23
24	25	26	27	28	29	30	25	26	27	28	29	30	25	26	27	28	29	30	31	24	25	26	27	28	29	30	

1966

JANUARY							APRIL							JULY							OCTOBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
2	3	4	5	6	7	8	3	4	5	6	7	8	9	3	4	5	6	7	8	9	2	3	4	5	6	7	8
9	10	11	12	13	14	15	10	11	12	13	14	15	16	10	11	12	13	14	15	16	9	10	11	12	13	14	15
16	17	18	19	20	21	22	17	18	19	20	21	22	23	17	18	19	20	21	22	23	16	17	18	19	20	21	22
23	24	25	26	27	28	29	24	25	26	27	28	29	30	24	25	26	27	28	29	30	23	24	25	26	27	28	29

ALVIN JUNIOR COLLEGE CALENDAR

1964-65

Registration	September 9, 10, 11, 14
	Hours: 9-11 a.m.; 7-8 p.m.
Classes Begin	Wednesday, September 16, 1964
Last Date to Register	September 23, 1964
Thanksgiving Holidays	November 26, 27, 1964
	(Thanksgiving Recess begins at close of evening classes, Wed., 25)
Christmas Holidays	December 18 to January 4, 1965
	(Christmas Recess begins at close of classes, Friday, Dec. 18)
Mid-Term Exams Begin	January 12, 1965
First Semester Ends	January 22, 1965
Second Semester Begins	January 25, 1965
Last Date to Register	February 10, 1965
Easter Holidays	April 15, 16, 19, 1965
	(Easter Recess begins at close of evening classes, Wed., April 14)
Final Exams Begin	May 19, 1965
Commencement	May 27, 1965
Second Semester Ends	May 28, 1965

1965 SUMMER SCHOOL*
First Six-Weeks Session

Registration	June 4, 7, 1965
Classes Begin	June 8, 1965
Holidays	July 2, 5, 1965
Term Ends	July 16, 1965
	Second Six-Weeks Session
Registration	July 16, 19, 1965
Classes Begin	July 20, 1965
Term Ends	August 27, 1965

*Classes meet on Mondays, Tuesdays, Thursdays, and Fridays during both sessions of Summer School.

Registration, Fall, 1965	September 8, 9, 10, 13
Classes begin, Fall, 1965	September 15, 1965

ACCREDITED BY

1. Association of Texas Colleges
2. Southern Association of Colleges and Secondary Schools

MEMBER OF

1. American Association of Junior Colleges
2. Southern Association of Junior Colleges
3. Texas Association of Junior Colleges
4. National Committee on Accrediting
5. Texas Association of Colleges

CATALOGUES

Request college catalogues from:

Registrar, Alvin Junior College

1. General Catalogue
2. Technical Division Bulletin
3. Data Processing Technology Program Booklet

ADMINISTRATION

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Mr. Riley A. Godwin, Vice-President
Mr. A. B. Kennedy, Jr., Secretary

Mr. C. B. Holdorff
Mr. Alton Burgess

Mr. Frank Emert
Mr. J. C. Cox

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Faculty

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M.A., East Texas State Teachers College

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B.S., The Agricultural & Mechanical College of Texas
M.S., The Agricultural & Mechanical College of Texas

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B.A., University of Washington
M.A., University of Idaho
M.Ed., University of Houston

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M.Ed., University of Houston
M.L., University of Houston

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B.A., Southwest Texas State Teachers College
M.S., Southwest Texas State Teachers College

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B.A., University of Colorado
M.A., Southwest Texas State Teachers College

- Miss Barbara Biggers Physical Education
B.S., University of Texas
- Dr. E. H. Black Education
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M.Ed., University of Texas
M.A., North Texas State University
- Dr. Dewey D. Davis Science
B.S., Pennsylvania State Teachers College
M.Ed., University of Texas
Ph.D., University of Texas
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B.S., University of Houston
- Mr. James Gebert Industrial Arts
B.S., Southwest Texas State Teachers College
M.E., University of Houston
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B.A., Texas State College for Women
M.A., Texas State College for Women
- Dr. Gordon Hensley Languages
B.A., Texas Technological College
M.A., University of Texas
Doctor en Filosofia, Universidad Interamericana
- Mr. John M. Holst Science
B.S., Sam Houston State Teachers College
M.A., Sam Houston State Teachers College
- Miss Helen A. Horton Piano, Organ, Harp
B.M., Northwestern University
M.M., Northwestern University
- Mr. J. W. Humphries Social Science
B.A., Baylor University
M.A., Baylor University
- Mr. Luke Kennedy Agriculture
B.S., Sam Houston State Teachers College
M.A., Sam Houston State Teachers College
- Mrs. Billie Johnson Laney Social Science
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- Mr. Ray Stanley Laney Social Science
B.B.A., University of Texas
M.S., East Texas State College
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B.S., East Texas Teachers College
M.A., East Texas Teachers College
- Mrs. Anona Moore Home Economics
B.S., Sam Houston State Teachers College
M.S., University of Houston
- Mr. C. P. Munz Industrial Arts
B.S., The Agricultural & Mechanical College of Texas
M.Ed., University of Houston
- Mr. Donald P. Ney Data Processing Education - Mathematics
B.S., Rider College of Business Administration
M.Ed., University of Texas
- Miss Pearl Marie Rinderknecht Business Education
B.P.A., University of Texas
M.Ed., University of Houston
- Mr. Carl Roesler Industrial Arts
A.A., Wharton County Junior College
B.S., Sam Houston State Teachers College
M.Ed., Sam Houston State Teachers College
- Mrs. Cherry Simpson Art
B.A., North Texas State Teachers College
M.A., North Texas State Teachers College
- Miss Evelyn Strickland Library
B.A., Texas State College for Women
B.S. in L.S., Texas State College for Women
M.A., Texas State College for Women
- Mrs. Ann Tiller History - Portuguese
B.A., University of Houston
M.A., University of Houston
- Miss Mary Wyllie English
B.A., University of Houston
M.A., Southern Methodist University

I. 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 thru 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 7 annual vacations 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 1950-1964: 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.

In 1954, Mr. A. B. Templeton of El Campo succeeded Mr. A. G. Welch as Superintendent of Schools. 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. 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), and Mr. Frank Emert (1964).

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 thru August 23, 1963).

The facilities of the college and the general program are constantly being reviewed with a view to making improvements where needed. Enrollments have increased from 134 individuals to 980 during the years of 1949-1964. An enrollment of 1,050 is expected for the fall term, 1964. The principal increase in enrollments during 1963-64 came in the new department of Data Processing Technology which had an enrollment of 251 by 169 individuals. Neal M. Nelson was named Director of Technical Education to direct the 10 instructors in drafting and data processing technology. Donald Ney was named chairman of the Department of Data Processing Technology, and James Gebert was named to direct the Drafting Department.

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. OBJECTIVES

GENERAL

(1) 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.

(2) 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.

SPECIFIC

(1) 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 in future months and years two additional years of work.

(2) The college is to provide pre-professional training of a standard level to meet the requirements of the first two years of a regular college course.

(3) The program is to provide training which leads to the completion of two years in terminal curricula, especially in the fields of business education, homemaking, industrial arts, and agriculture.

(4) The college hopes to strengthen the students' grasp of national and world affairs in order that they may be better citizens.

(5) Another aim is to strengthen the students' knowledge of good health practices.

(6) The college is cooperating with the community to provide planning for better recreational facilities and opportunities.

(7) Short courses and special programs for adults are being carried out through a Department of Adult Education.

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 no one will enter Alvin Junior College who cannot 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. The selection and placement of students will be based in the main upon the following criteria and upon the conditions indicated:

- (1) High School graduation—a high school graduate who wishes to be admitted must meet the following requirements:
 - a. Apply on the official application form.
 - b. Present a satisfactory transcript of credits.
 - c. Take prescribed tests.
 - d. Appear for personal interview.
 - e. Out of district applicant must have a letter of recommendation from the school from which he graduated.
 - f. All students who are entering Alvin Junior College for the first time must provide the college with a statement from their local physician.
 - g. Furnish recent photo for personal file.

(2) Special approval—an applicant who wishes to be admitted by special approval must meet the following requirements:

- a. Be at least twenty-one years of age or a veteran.
- b. Apply on the official application form.
- c. Prove ability by taking prescribed tests.
- d. Appear for personal interview and comply with special requirements required of each individual applicant.
- e. Complete these requirements before the opening date of the semester.
- f. Special Students: Admission to certain terminal courses on a non-credit basis is granted to mature students over twenty-one years of age who give evidence of being able to take the courses desired with profit.

(3) Admission from other colleges: (All credentials should be sent to the Registrar)

- a. Make application on official application form.
- b. Present a separate and official transcript from each college attended.
- c. Appear for personal interview.
- d. Furnish proof of eligibility for re-admission to the college last attended with a statement of honorable dismissal.
- e. Students who have accumulated more than 66 semester hours will be made eligible for admission to the college only upon recommendation of Admissions Committee.
- f. Furnish health certificate.
- g. Furnish recent photo for personal file.

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. 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.

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.

Freshman Testing and Counseling

All students entering Alvin Junior College for the first time will take the prescribed testing program unless comparable test scores are presented to college officials. A.J.C. accepts ACT or CEEB test scores.

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 6 hours each of the following transferable courses: English, Social Science, Mathematics, and Foreign Language.

2. 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 16 hours per semester must be approved by the Dean of the College.

On the recommendation of the instructor concerned, a student may at any time be required by the Registrar to drop a course because of neglect, lack of preparation, poor attitude, etc.

Registration by students on scholastic probation must be approved by the Dean.

WITHDRAWAL FROM COURSES

1. Students who withdraw before the end of the fourth week of the regular session or the second week of the summer term will receive a grade of "W".
2. Students who withdraw after the fourth week of the regular session or after the second week of the summer session will receive a grade of WP (withdraw passing), if they are passing in the course at the time of withdrawal; they will receive a grade of "WF" if failing at the time of withdrawal.
3. Official drops are handled thru the office of the registrar and students are required to request a formal withdrawal before leaving the college. A student who leaves without officially dropping thru the office will receive a final grade of "F".
4. Students who withdraw after the fourteenth 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.
5. A student who becomes ill after the fourteenth 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 (within the following term).
6. A student who is on probation must secure a special permit to re-register at Alvin Junior College.
7. A student who changes to an "Audit" status from a credit class may do so during weeks numbered 1, 2, or 3 only during the regular session. He must attend regularly while enrolled as an auditor.

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, unless the class instructor files with the office a request for an extension of four weeks.
3. Grade points are not given for "W", "Audit", or "K" grades.

3. NUMBER OF HOURS — STUDENT LOAD

A student should register for five college courses, or fifteen class hours per week. Registration should be approved by the Registrar. Under unusual circumstances, a student may register for another subject if his study program is approved by the Dean. A student may register for a part-time load (with the approval of the Dean) if he is employed more than three hours per day.

A semester-hour represents the work accomplished by a class meeting one hour a week for eighteen weeks. A year-hour represents the work of a class meeting one hour a week for thirty-six weeks. Consequently, a class meeting three times a week counts three semester hours, or six-year hours, according to whether it meets for a semester or a year.

4. MINIMUM LOAD

The standard college load is fifteen semester hours of work. Students who take more than 16 hours of work for credit, or those who fall below twelve hours of work, must secure permission from the Dean. Permission to carry a light load is granted only in cases where the student is in ill health, working practically a full shift, or where there is serious illness at home which makes it impossible for that student to take at least twelve hours of work. An over-load is granted only in case of proven scholarship. A poor student may not take courses over and above the normal load.

5. ATTENDANCE REQUIREMENTS

Credit and grade in any course are to be determined primarily on the student's mastery of the contents and achievement set for the course as measured by the student's initiative and diligence, preparation of required work, class tests, and final examinations. No "cuts" are allowed. Several absences will tend to lower the grade, and persistent absences will preclude a passing grade. Regular class attendance is expected of all students. In case of an emergency, students are asked to arrange for an absence in advance.

When a student has been absent from a class for one week (without permission from the Dean), he will be sent a notice requesting that he appear at the office to give the reason for the absence on or before the end of the following week. In case the student does not appear to explain his absence, he will be dismissed as of the date the notice was sent out. This rule applies to civilian and veteran students alike.

An absence on the day preceeding or following a holiday will count as two absences.

When a student misses an exam 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

Alvin Junior College provides fine equipment and facilities with which to work. The Junior College is delighted to grant students as much freedom of action as is compatible with good work. A high sense of personal honor and regard for truth represent the foundation for good conduct. Students who, contrary to established rules, persistently fail to conduct themselves properly will be dropped from the rolls of the institution.

7. CONDUCT

As stated before, students will be expected to conduct themselves as ladies and gentlemen while on the campus. Rules and regulations made and posted by the Administration or the Student Council are to be followed by all students. Students will be dropped from the rolls of the college for major offenses. If the offense is minor, the Dean will usually place the student on probation for conduct. Continued poor conduct will be cause to drop the student from the College for a stated period.

Failure of a serious nature in class work or continued failure to attend class will be cause for action by the Dean or Registrar.

8. 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.

Reports: Periodic reports are made to parents who express a desire for them. Mid-term reports of poor grades and poor attendance may be sent to parents of minors. Grade cards are issued each nine weeks' period.

When the work of a student is reported incomplete or when the grade is withheld, a grade of "K" is reported by the Registrar, if the student has been permitted by the Dean to postpone the examination or a part of the class work.

Students are informed that when a grade of "K" is recorded for a nine weeks' mark, it must be made up under the direction of the faculty member during the following nine weeks' period. 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" (failure).

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, unless excused by the Dean or Registrar. Permits to take late examinations must be issued by the Dean or Registrar.

9. GRADE POINTS

A student will be expected to maintain a 1 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 3 grade points per semester hour.

A grade of "B" equals 2 grade points per semester hour.

A grade of "C" equals 1 grade point per semester hour.

No grade points are given for a grade of "D" or "F".

10. ORGANIZED ACTIVITIES IN ALVIN JUNIOR COLLEGE

The following clubs operate during the school year at Alvin Junior College: the Press Club, the Pan American College Forum, Student National Education Association, Athletic Club, Music Club, Tennis Club, Homemaking Club, Library Club, Speech Club, Slide Rule Club, the Chess Club, Phi Theta Kappa, and Tau Psi.

Meetings are held usually during the activity period. In addition, the Faculty and Student Council sponsor special programs centering around guidance, intramural sports, and assemblies.

The Adult Education Department brings to the College, during the late afternoon and evening hours, many programs of a civic nature.

This program is described more in detail on page 79.

11. CLASSIFICATION OF STUDENTS

Full-time students are those who take at least 12 semester hours of college work. Students who take less than 12 semester hours of college work are classified as part-time students.

When a student has earned as many as 24 semester hours he is classified as a sophomore.

12. SCHOLASTIC PROBATION

Students who do not meet these scholastic standards are placed on scholastic probation:

- a. Students taking a full load (12 semester hours or more) must pass in at least 9 semester hours.
- b. Students who take a part time load (less than 12 semester hours) must pass at least 2/3 of the hours for which they are registered for any semester.

Students must maintain a 1-point grade average to qualify for graduation from Alvin Junior College.

Scholastic probation brings with it certain responsibilities and opportunities. Students must improve their scholastic average by the end of the next reporting period (the nine weeks of the regular session) to a current 1.0 grade average. Failure to make a 1.0 grade average will mean that the student is automatically dropped from the college for the duration of the semester or term and the succeeding semester or summer term.

13. GUIDANCE

The Junior College provides guidance and counseling services for all students. Placement tests are given often during the registration period; and, subsequently, the Counseling Officer gives additional tests. In addition, an over-all personality course called Orientation 101 is given on notice by the Dean through the Department of Education and Psychology. The areas of investigation include health, personal adjustments, college orientation, marriage and family relations, vocational planning, use of the College Library, and how to study.

14. STUDENT COUNCIL

Student affairs of Alvin Junior College are managed by a student council 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.

1. Powers, duties, and responsibilities given to the Student Council:
 - A. Recreation activities
 - B. School calendar
 - C. Student-administration participation
 - D. Assembly participation
 - E. Revision of the Constitution

- F. School elections
- G. Student-parent participation
- H. Special drives
- I. Interschool relationship
- J. Intramural participation

2. Powers denied the Student Council:

- A. Academic rules and procedure
- B. Interscholastic League and band activities
- C. Dramatics
- D. Any social activity which is not given for the whole school

3. College Colors: Red and white

15. SCHOLARSHIPS

The Board of Education will award annually a scholarship of \$100.00 (to apply on tuition) for one year or two semesters to the valedictorian of any high school in this area of Texas. This \$100.00 scholarship must be used within two years immediately following graduation from high school.

Other scholarships and awards will be given by civic and service clubs of this area and presented according to succeeding announcements.

E. NUMBERING OF COURSES

THREE DIGITS ARE USED IN NUMBERING COURSES

- 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 written permission is granted.
 3. Courses numbered in the 200's are of sophomore level.
 4. Courses numbered from 101 thru 109 and 201 to 209 are courses for which terminal credit is intended because of the content of the course or because the course is usually given above the sophomore level in college and transfer credit is not planned. The student who takes work at the junior college level and does not plan to go on to a senior college will find these courses, given in many instances in the adult education program, valuable for personal and specific reasons. These courses may count toward an A. A. diploma.
- 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.

ADVANCED STANDING

Advanced standing may be secured by three classes of students:

1. A student entering from another college must present:
 - a. A letter of honorable dismissal.
 - b. An official transcript of his entire college record, including his admission units. Credits from affiliated colleges will be accepted at full value, provided such credits are recognized in this institution.
2. A student from a secondary school who, in addition to satisfying the admission requirements, wishes to obtain, by examination or other means, advanced standing in any department must secure the consent of the head of the department concerned and the approval of the Registrar.

Solid geometry and trigonometry accepted as entrance credit may each be counted as two semester hours toward a diploma, provided (1) that the applicant has sufficient number of entrance units other than these, and (2) that the applicant takes a full course (six hours) of college mathematics and makes an average of at least C.

3. By examination.

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. Most all science courses and a few others are hyphenated, and a student will be expected to complete the full year course. 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.
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:

In-District Student:

Tuition is \$5.00 per semester hour; maximum tuition is \$50.00 for a full load.

Out-Of-District Student:

Tuition is \$8.00 per semester hour; maximum tuition is \$65.00 for a full load.

Out-Of-State Student:

Tuition is \$17.00 per semester hour; maximum tuition is \$200.00 for a full load.

Tuition Chart—Per Semester

No. Sem. Hours	In-District	Out-of-District	Out-of-State
3 or less	\$15.00	\$24.00	\$51.00
4	20.00	\$32.00	68.00
5	25.00	\$40.00	85.00
6	30.00	\$48.00	102.00
7	35.00	\$56.00	119.00
8	40.00	\$64.00	136.00
9	45.00	\$65.00	153.00
10	50.00	\$65.00	170.00
11	50.00	\$65.00	187.00
12 or over	50.00	\$65.00	200.00

Fees — — Tuition Notices

Fees per semester (not refundable)

1. Activity fee for 3 or more courses \$6.00
 Activity fee for fewer than three courses 3.00
 Activity fee for summer term none
 Students enrolling for two or fewer courses (during the regular terms) may purchase a college year book for an additional payment of \$5.00.
2. Music fees: (one semester hour credit - \$10.00 each semester; two semester hours credit - \$15.00 per semester; four semester hours credit - \$25.00 per semester.)
3. Laboratory fees (chemistry, physics, biology, typing, business machines, auto mechanics, drawing, drafting, Home Ec., machine shop, F. Languages, and woodworking) - \$2.00 per course per semester.
4. Auditor fee in course (no credit) is one-half tuition fee for credit course. Auditors will not be allowed to register for the following lab. courses: Foreign languages, home economics, woodworking, machine shop, chemistry, or art.
5. Fee for Late Registration
 \$1.00 per day, up to five days, 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.
7. Fee for Late Examination
 A fee of \$2.00 will be charged each student who takes a semester examination after the regular exam periods are over.
8. Fee for Transcript
 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.
 A charge of \$1.00 is charged for each copy of the official Alvin Junior College transcript after the first copy (which is furnished free).
9. Students in Adult Education classes pay the same tuition as day students for college-credit courses.
10. Data Processing Technology: All DPT courses carry a tuition of \$8.00 per semester hour (to a maximum of \$65.00 for resident of Texas). The lab. fee per course is \$8.00 per semester.

11. A Permit to Change Schedule: A student who wishes to change his class schedule (at his own request) after the first initial enrollment period at the beginning of a term will pay a 50c charge to take care, in part, of the secretarial assistance needed and materials used for the change. The permit must be used within a period of 3 class days.

12. Fees and tuition must be paid at time of registration.

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.

Summer Tuition

1. Tuition—\$10.00 per semester hour.
2. Late Registration fee . . . \$3.00.
3. An auditor in the summer term pays the full tuition rate.

Refunds

Refunds for the summer sessions (tuition only) will not be honored after the second week of any summer session. Classes are organized and instructors hired on the basis of student interest.

II. REQUIREMENTS FOR GRADUATION

- A. **Associate in Arts Diploma.** To receive the Associate in Arts Diploma, 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.
or
 2. Twelve semester hours in English.
 3. Nine hours in social science: (Six hours in American or Texas History and three 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 1.0 on all courses taken whether passed or failed. This is the equivalent of a C average on all work taken.
- B. **The Junior College Terminal Education Certificate:** To receive the certificate, a student must have received the following credit in semester hours:
1. Twelve hours in vocational and/or terminal courses in business education, home economics, woodworking, machine shop, or agriculture, shop, English or languages.
 2. Six hours in social science: (H. 183, H. 193, H. 173L, H. 173M).
 3. At least six hours in English.
 4. Sufficient hours to total sixty semester hours.
 5. Study in residence at least two terms or complete at least twelve semester hours at Alvin Junior College.
- C. **ASSOCIATE IN SCIENCE DIPLOMA:** To receive this diploma, the student must have completed the technical course of two years, and specifically to:
1. Have completed the required courses in one of the four areas of the Technical Division: (a) Chemical, (b) Drafting, (c) Electronics, or (d) Data Processing technology.
 2. Have completed at least 60 semester hours, including 3 hours in government, 6 hours in U.S. and/or Texas history, 6 hours in English, and 3 hours in economics or psychology.
 3. Have earned a grade point average of at least 1.0 (C).
- D. **Required of all Candidates for Graduation:** All candidates for a diploma or a certificate from Alvin Junior College will be expected to attend graduation exercises.

REGISTRATION PROCEDURE

Note: The dean of admissions and registrar is the administrative officer at the present time who is charged with the responsibilities of supervising: admissions, counseling and advisement of courses of study, and registration for class work at Alvin Junior College. The Registrar also forwards the student's transcript to other colleges or to business firms when work has been completed.

Steps to Registration

1. **Application for admission.** A student should secure an official blank and request admission to Alvin Junior College. When this blank has been received, an appointment time will be given the student so that he may have a personal interview with the Dean or Registrar.
2. **Advisement and Counseling.** At a personal conference with the Registrar, the student will work out his exact class schedule for the next school term. When this has been done, he will be issued a PERMIT TO REGISTER by the Dean of Admissions. This short blank must be filled out and presented at registration desk No. 1 along with an appointment to register notation issued prior to registration dates.
3. **Registration.** Students who apply for admission and receive advisement and counseling early (at least 5 days before registration dates) will be given an appointment hour to register on the first day of registration. Others will be required to wait until called according to the letter of the alphabet—corresponding to their last names.
Early come—early serve!

NOTE: A student who is admitted to A.J.C. for the first time must present the following:

- a. **If a college transfer to Alvin Junior College**
 - 1. A transcript from the last school attended.
 - 2. A small billfold size photo.
- b. **If entering college for the first time**
 - 1. A letter of recommendation from a school official.
 - 2. Transcript from last school attended.
 - 3. A statement from your family physician stating that you are in good health.
 - 4. A small photo of yourself.

A student who does not have these credentials on file will be registered on a temporary basis for a period of 15 days. If at the end of that time, the credentials are not on file, the student must withdraw from the college.

III. THE LIBRARY

The modern and spacious library is well lighted and air conditioned, providing a scenic view of the campus. It contains an adequate book collection, 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 periodicals aid in reference and research, together with an up-to-date vertical file of materials. There is a growing collection of film strips, records, and tapes.

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.

IV. CURRICULAR SUGGESTIONS

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.		
	*Economics, Geography, or Sociology		Note: *History 113-123, 183, 193, Hist. 133, 143, 173L, or 173M.

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

Freshman		Sophomore	
A.	English 113,123 6 hrs.	A.	English and/or Speech 6 hrs.
B-1.	Mathematics and	B.	Government 213,223 6 hrs.
B-2.	Science 12 hrs.	C.	Machines 183 3 hrs.
C.	Economics 183,193 6 hrs.	D-1.	Economics, or
D-1.	History, or	D-2.	Geography, or
D-2.	Foreign Language 6 hrs.	D-3.	Sociology 6 hrs.
E.	Accounting 183,193 6 hrs.	E.	Accounting 283,293 6 hrs.
F.	O. 101 1 hr.	F.	Electives 6 hrs.

DRAMATICS AND 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.	Dramatics 183 3 hrs.
C.	Mathematics or History or Educ. 6 hrs.	C.	Government 213, 223 .. 6 hrs.
D.	Foreign Language 6 hrs.	D.	Science** or Math 6 or 8 hrs.
E.	Electives 6 hrs.	E.	History*** or Economics 6 hrs.
F.	P. E. Credit	F.	Electives 6 hrs.
G.	Orientation 101 1 hr.		Note: **Science — Chemistry, Phy- sics, or Biology. ***History 113-123, 183, 193, 133, 143, 173L, 173M.
	Language: Spanish, French, or Portuguese.		

*Degree Note: Alvin Junior College does not offer a degree; and the expression, "leading to a degree" refers, of course, to further study at a senior college.

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.

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.	Credit	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. Education	3 hrs.
B-3. History, or		D. Soc. Sci.	6 hrs.
B-4. Art	6 to 9 hrs.	E. Electives	9 hrs.
C. Speech	3 hrs.	F. Geography 183	3 hrs.
D. Education	3 hrs.		
E. P. E.	Credit		
F. Orientation 101	1 hr.		
G. Electives	6 to 9 hrs.		

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

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	3 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.	Credit		

Freshman Year

First Semester		Second Semester	
A. Chemistry 114	4 hrs.	A. Chemistry 124	4 hrs.
B. Analytics 114	4 hrs.	B. English 123	3 hrs.
C. English 113	3 hrs.	C. Calculus 213	3 hrs.
D. E. D. 113	1 hr.	D. Physics 184L	4 hrs.
E. History 183**	3 hrs.	E. D. G. 183	3 hrs.
F. O. 101 (Orientation)	Cr.	F. P. E. 141	Cr.
G. P. E. 131 (Men)	Cr.	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 193	
B. Physics 214	4 hrs.	(Prof. Writing)	3 hrs.
C. Calculus 223	3 hrs.	B. Phy. 224	4 hrs.
D. Govt. 213	3 hrs.	C. Cal. 233 (Cal.	
E-1. History 193		Applications)	3 hrs.
or Elective	3 hrs.	D-1. Govt. 223, or	
F. P. E.	Cr.	D-2. Electives	6 hrs.
		E. E. P. 111	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.	Credit		
G. Orientation 101	1 hr.		

MUSIC—LEADING TO BACHELOR OF MUSIC DEGREE

Freshman		Sophomore	
A. English 113, 123	6 hrs.	A. English 213, 223*	6 hrs.
B. Mathematics	6 hrs.	B. Government 213, 223**	6 hrs.
C. Soc. Sci.	6 hrs.	C. Music	6 hrs.
D-1. Science**, or		D. Electives	12 hrs.
D-2. Education 113, 123	6 or 8 hrs.	Note: *Journalism may be substituted	
E. Music 114-124	8 hrs.	for English 223. **Three	
F. P. E.	Credit	hours of Government are required	
G. Orientation 101	1 hr.	for A. A. diploma.	

Note: *History 113-123, History 183, 193, or 133, 143, H. 173L, H. 173M. **Science - Biology, Chemistry or Physics.

PRE-PHARMACY—LEADING TO PHARMACY DEGREE

Freshman		Sophomore	
A.	Chemistry 114,124 8 hrs.	A.	English 213,193 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. Cr.	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. English 173 3 hrs.	B.	Economics 183,193 6 hrs.
C.	Typing 3 or 6 hrs.	C-1.	Bus. Law 213,223 or,
D.	Shorthand 9 hrs.	C-2.	Business 203K 6 hrs.
E.	Math. 103M, or	D-1.	Science, or
F.	Business 113 3 hrs.	D-2.	Foreign Language, or
G-1.	Machines 3 hrs.	D-3.	Accounting 183,193 6 hrs.
H.	Electives 5-7 hrs.		
I.	O. 101 1 hr.		
J.	P. E. Cr.		

**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.	History 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		
E-3.	Geography 3 hrs.		
F.	Science 6-8 hrs.		
G.	Orientation 101 1 hr.		
H.	P. E. Cr.		

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

Freshman		Sophomore	
A.	Speech 6 hrs.	A.	Dramatics 3 hrs.
B.	History 6 hrs.	B.	Music, or
C.	English 113,123 6 hrs.	C.	Art,
D.	Electives 12 hrs.	D.	Economics 6 hrs.
E.	O. 101 1 hr.	E.	Govt. 213,223 6 hrs.
F.	P. E. Cr.	F-1.	Foreign Language, or
		F-2.	Sociology, or
		F-3.	Science 6-8 hrs.
		G-1.	Accounting, or
		G-2.	Approved elective 6-8 hrs.
		H-1.	Mathematics, or
		H-2.	History 3 hrs.

SECRETARIAL SCIENCE — TERMINAL DIPLOMA

One-Year Course

First Semester	Second Semester
English 113	Business English 173
Shorthand 153 or 163	Shorthand 163 or 203
Typing 153 or 163	Typing 163 or 203
Introduction to Business or Economics	Speech
Office Machines	Office Accounting 103
Sec't. Orientation 101	Secretarial Practice 193

Two-Year Course

Freshman Year

First Semester	Second Semester
English	Business Machines
Typing 153 or 163	Typing 163 or 203
Shorthand 153 or 163	Shorthand 163 or 203
Introduction to Business 113	History 193
History 183	Math
Math	Physical Education
Orientation	Elective
Physical Education	

Sophomore Year

First Semester	Second Semester
Shorthand 203	Secretarial Practice 193
Accounting 183	Business English 173
Speech	Accounting 193
Government	Economics
Physical Education	Physical Education
Elective	Elective

V. COURSES OFFERED

Note: The numbers which appear in parenthesis indicate the following:

(1) The number in parenthesis after the course number is the original number the course was given in the first catalogue.

(2) The numbers in parenthesis after the course title indicate the lecture dash 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. AGRICULTURE

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

2. BUSINESS ADMINISTRATION AND BUSINESS EDUCATION

- Acct. 103, Office Accounting. (2-2)
- Sec. O. 101, Secretarial Orientation. (1-0) 170101
- T. 153, (113), Beginning Typing. (2-2) 030504
- T. 163, (123), Intermediate Typing. (3-0) 030504
- T. 102, Intermediate Typing for Adult Students. (1-2) 030505
- T. 203, (213), Advanced Typing. (3-0) 030507
- Shd. 153, Beginning Shorthand. (2-2) 030502
- Shd. 163, Intermediate Shorthand. (2-2) 030502
- Shd. 203, Advanced Shorthand. (3-0) 030503
- Mach. 183, Office Machines and Machine Accounting. (2-2) 030601
- S. Pr. 193, Secretarial Practice. (3-2) 030506
- Bus. 113, Introduction to Business. (3-0) 030301
- B. Eng. 173, Business English. (3-0) 030509
- Math. 103M, (153), General Business Mathematics. (3-0) 140605
- Bus. 203K, Business Finance. (3-0)
- Law 213, 223, Business Law. (3-0) 030304
- Acc. 183, Introduction to College Accounting. (2-2) 030101
- Acc. 193, Introduction to College Accounting. (2-2) 030101
- Acc. 203, Tax and Payroll Accounting. (3-0)
- Acc. 273, Cost Accounting. (3-1) 030108
- Acc. 283, Intermediate Accounting: I. (3-0) 030102
- Acc. 293, Intermediate Accounting: II. (3-0)
- B. A. 113, Mathematics of Finance I. (3-0) 140202
- B. A. 123, Mathematics of Finance II. (3-0) 140604
- B. A. 213, Statistics. (3-1)

For Data Processing Course offerings in Business Administration area, refer to the Data Processing Technology section.

- 3. DEPARTMENT OF EDUCATION AND PSYCHOLOGY
 - Ed. 113, Introduction to Education. (3-0) 050103
 - Ed. 123, Personal and Community Health. (3-0) 090202
 - Ed. 133, Introduction to Elementary Education. (3-0) 050201
 - Ed. 143, Introduction to Physical Education. (3-0) 090101
 - Ed. 183, (233), Health Education. (3-0)
 - Ed. 193, The Elementary School Child. (3-0)
 - Ed. 213, Teaching Physical Education in Elementary School. (3-0)
 - Ed. 223, Health Education for Teachers in Elementary Schools. (3-0) 090107
- O. 101, College Orientation. (1-0) 170101
- Psy. 213, General Psychology. (3-0) 180802

4. DEPARTMENT OF ENGLISH AND JOURNALISM

- E. 032, Fundamentals of Writing. (2-0) 070101
- E. 113, Composition and Rhetoric. (3-0) 070102
- E. 123, Composition and Rhetoric. (3-0) 070102
- E. 113E, 123E, Composition and Rhetoric. (3-0) 070102
- E. 133, Technical Report Writing. (3-0) 070401
- E. 213, Survey of Literature, Part I. (3-0) 070313
- E. 223, Survey of Literature, Part II. (3-0) 070313
- E. 183, Composition: Expository Writing. (3-0)
- E. 193, Writing for Professional People. (3-0)
- J. 113, Introduction to Journalism. (2-2) 120101
- J. 181-191, Journalism Activities. (1-1)

5. DEPARTMENT OF FINE ARTS

- Art. 103, Watercolors. (2-4) 020903
- Art. 113, 123, Design. (2-4) 020303
- C. A. 103H, Commercial Art I. (2-4) 020603
- C. A. 103J, Commercial Art II. (2-4) 020603
- Art. 163, Interior Design. (2-4) 020604
- Art. 183, 193, Art for Elementary Majors. (2-4) 021101
- D. P. 213, 223, Drawing and Painting. (3-3) 021202
- F.P. 133, Freehand Perspective. (2-4) 020702
- A.P. 253, 263, Advanced Painting. (2-4) 020902
- H.A. 133, 143, History of Art. (3-0) 020201
- Mu. 114-124, Harmony and Ear Training. (5-0)
- Mu. 122B, Study of Percussion. (1-2)
- Mu. 112RD-182RD, Study of Reeds. (1-2)
- Mu. 192BR, Study of Brasses. (1-2)
- Piano 114, 124, Study for Piano Majors. (2-15)
- Piano 214, 224, Study for Piano Majors. (2-15)
- Organ 114, 124, Study for Organ Majors. (2-15)
- Organ 214, 224, Study for Organ Majors. (2-15)
- Harp 114, 124, Study for Harp Majors. (2-15)
- Harp 214, 224, Study for Harp Majors. (2-15)
- Choir 111, 121, 211, 221, A Cappella Choir. (2-2)
- A. M. 111 or 121, 211, 221, Applied Music. (1-5) 150305
- A. M. 112, 122, 212, 222, Applied Music. (2-10) 150305
- Mu. 113, 123, Music Appreciation. (2-2)

6. DEPARTMENT OF FOREIGN LANGUAGE
 Span. 114, 124, Beginner's Spanish. (3-2) 081201
 Span. 153, 163, Elementary College Spanish. (3-0) 081201
 Span. 183, 193, Intermediate College Spanish. (2-2) 081202
 Span. 253, 263, Advanced Conversation and Composition. (3-0) 081204
 Span. 233, Readings in Spanish-American Lit. Before 1890. (3-0)
 Span. 243, Readings in Spanish-American Lit. After 1890. (3-0)
 Span. 133, History of the Americas Since 1804 (In Spanish). (3-0)
 Span. 143, History of the Caribbean and Mexico (In Spanish). (3-2)
 Fr. 114, 124, Beginner's French. (3-2) 080401
 Fr. 183-193, Intermediate College French. (2-2) 080402
 Port. 114, 124, Beginner's Portuguese. (3-2) 081001

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

8. DEPARTMENT OF INDUSTRIAL ARTS
 W.W. 153, General Woodworking. (2-4) 110503
 W.W. 163, Cabinet Making. (2-4)
 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) 060804
 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)

9. DEPARTMENT OF MATHEMATICS
 Alg. 113, College Algebra. (3-0) 140607
 Alg. 113E, College Algebra for Engineers. (3-0) 140607
 Alg. 113L, Algebra for Business Majors. (3-0)
 Alg. 103, (133), Introduction to College Algebra. (3-0) 140201
 E.P. 111, Engineering Problems. (1-1) 140103
 Geom. 103M, Introductory Geometry. (3-0) 140103
 S. Geom. 103, Solid Geometry. (3-0) 140104
 Trig. 123, Plane Trigonometry. (3-0) 140106
 An. 114, Analytic Geometry. (4-0) 140204
 Cal. 215, 225, Differential and Integral Calculus. (5-0)

- 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
 Math. 153, Foundations of Mathematics. (3-0) 140101
 Math. 163, Modern Topics in Mathematics. (3-0)
 Math. 173, Modern Algebra. (3-0)
 Math. 103D, Technical Mathematics I. (3-0)
 Math. 103E, Technical Mathematics II. (3-0)
 E.P. 113, General Engineering Problems and Applications.
 (2-3) 140608

For Data Processing Course Offerings in Mathematics area,
 refer to the Data Processing Technology Bulletin.

10. DEPARTMENT OF PHYSICAL EDUCATION
 P.E. 111, 121, Physical Education for Women. (1-1) 090301
 P.E. 131, 141, Physical Education for Men. (1-1) 090301
 P.E. 211, 221, Physical Education for Sophomore Women. (1-1) 090302
 P.E. 231, 241, Physical Education for Sophomore Men. (1-1) 090302
 Ed. 123, Personal and Community Health. (3-0) 090202
 Ed. 143, Introduction to Physical Education. (3-0) 090101
 Ed. 183, Health Education. (3-0)
 Ed. 213, Teaching Physical Education in Elementary School. (3-0)
 Ed. 223, Health Education for Teachers in Elementary Schools.
 (3-0) 090107

11. DEPARTMENT OF SCIENCE
 B. 114, Elementary Zoology. (3-3) 160101
 B. 124, Elementary Botany. (3-3) 160101
 B. 214, Comparative Anatomy of the Vertebrates. (2-6) 160108
 B. 234, Introductory Microbiology. (3-3) 160107
 Zoo. 133, Invertebrate Zoology. (3-3) 160112
 Zoo. 143, Vertebrate Zoology. (3-3) 160112
 Bio. 213-223, Human Anatomy and Physiology. (3-3) 160104
 Chem. 113-123, General Chemistry. (3-2) 160202
 Chem. 133, College Chemistry I. (3-2)
 Chem. 141, College Chemistry II. (0-4)
 Chem. 134, College Chemistry. (3-4)
 Chem. 114-124, Gen. Inorganic Chemistry & Qualitative Analysis.
 (3-4) 160201
 Chem. 214, Quantitative Inorganic Analysis. (2-6)
 Chem. 284-294, Organic Chemistry. (3-4) 160203
 Phy. 114-124, Physics. (3-2) 160301
 Phy. 184K, Mechanics. (3-4)
 Phy. 184L, Mechanics and Heat. (3-4) 160303
 Phy. 214, Electricity and Magnetism. (3-4)
 Phy. 224, Wave-Motion, Sound, Light. (3-4)

VI. DESCRIPTION OF COURSES

1. THE DEPARTMENT OF AGRICULTURE

12. DEPARTMENT OF SOCIAL SCIENCE
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)
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
H. 101N, 101S, Introduction to the History of International Relations Activities. (1-1)
H. 103, Current History and Public Affairs. (3-0)
H. 183K, Basic Books in U.S. History to 1865. (3-0)
Geog. 183, Principles of Geography. (3-0) 180401
Govt. 213, 223, American National and State Governments. (3-0) 180501
Govt. 233, Constitutions. (3-0) 180506
Eco. 153, Consumer Economics. (3-0) 180306
Eco. 183, Principles of Economics. (3-0) 180301
Eco. 193, Economic Problems. (3-0) 180301
Soc. 103, Contemporary Social Problems. (3-0)
Soc. 113, Principles of Sociology. (3-0) 180901
Soc. 123, Social Problems. (3-0) 180902

13. DEPARTMENT OF DATA PROCESSING
DPT 103C. Introduction to Data Processing. (2-2)
DPT 103D. Unit Record Equipment Operation. (2-2)
DPT 103E. Technical Mathematics for Data Processing. (3-0)
DPT 103F. Advanced Control Panel Wiring. (2-3)
DPT 103G. Computer Programming I. (2-3)
DPT 103T. Key Punch and Office Procedures. (2-2) 030603
DPT 103S. Seminar. (3-0)
DPT 203C. Data Processing Applications. (3-2)
DPT 203D. Computer Programming II. (2-3)
DPT 203E. Accounting Systems and Data Processing. (2-3)
DPT 203F. Computer Programming III. (3-2)
DPT 203G. Computer Programming IV. (3-2)

14. DEPARTMENT OF SPEECH AND DRAMATICS
S. 113, Fundamentals of Speech. (3-0) 040302
S. 123, Public Speaking. (3-0)
S. 173, Oral Interpretation. (3-0) 040311
S. 133, Business Speech. (3-0) 040307
Dr. 183, Dramatic Arts. (3-0)
S. 181, Theatre Activities. (1-0) 040205
S. 191, Forensic Activities. (1-0) 040308

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 BUSINESS ADMINISTRATION

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.

See page 34 for list of courses offered.

Sec. O. 101. Secretarial Orientation. (Credit: 1 semester hour).

Presentation of educational and professional information to assist students in their personal adjustment to college life. College organization, vocations and educational guidance, self-development, academic proficiency and social competency.

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.

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 on 10 minute speed test. Prerequisite: T. 153 or one year of high school typing.

T. 102. Intermediate Typing for Adult Students. (Credit: 2 semester hours.)

This course is a continuation of T. 153. Special emphasis will be placed on letter writing, tabulations, report forms, and accuracy exercises. Minimum requirement of 40 words per minute on a five-minute speed test. Class meets one hour per week for instruction; and in addition, each member must spend at least two hours on laboratory work. Prerequisite: Typing skill of at least 20 words per minute or T. 153.

T. 203. Advanced Typing. (Credit: 3 semester hours).

Additional training is given in letter writing, filing business papers, tabulation, stencil cutting, creation of office atmosphere. Minimum requirement of 60 credit words per minute for 15 minute speed test is maintained. Prerequisite: T. 153-163 or their equivalent.

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. Two lecture and two laboratory hours per week.

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

Continuation of Shorthand 153. Speed dictation of 80 words required. Prerequisite: Shorthand 153.

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. Three hours lecture plus practice. Prerequisite: Shd. 153-163 or their equivalent.

Mach. 183. Office Machines and Machine Accounting. (Credit: 3 semester hours).

Introduction to operations of rotary calculator, ten key and full key adding machines, Comptometer, posting machines, dictaphone, key punch and accounting machines. 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 or advanced course work. Two hours lecture and two laboratory hours each week.

S. Pr. 193. Secretarial Practice. (Credit: 3 semester hours).

Shorthand review and high-speed dictation; personality in the office; office practice and routine; store and office visitations; filing. A study will be made of secretarial occupations, and handling of mail, general office duties and secretarial personality. Dictation increased to 95-120 words per minute. Three lecture and two practice hours per week for 1 semester. Prerequisite: Shd. 153-163 or their equivalent.

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 all majors in business administration. Three lecture hours per week.

B. Eng. 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.

Math. 103M. General Business Mathematics. (Credit: 3 semester hours).

This course includes a review of business arithmetic, arithmetic short-cuts, 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. 203K. 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.

Law 213, 223. **Business Law.** (Credit: 6 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.

Acct. 183. **Introduction to College Accounting.** (Credit: 3 semester hours).

Introductory course in accounting designed to serve as a foundation for advanced accounting and to furnish a knowledge of accounting principles that will be of value to students in other fields. Subject matter covers analysis and recording of transactions, use of journal and ledger, trial balance and working papers, adjusting and closing entries, accounting statements, introduction to single proprietorship, partnership, corporation and voucher system. Two hours lecture and two hours laboratory per week.

Acct. 193. **Introduction to College Accounting.** (Credit: 3 semester hours).

Introductory course in accounting with emphasis on cash items, internal control, accounting for inventories, fixed assets, liabilities, manufacturing operations and an introduction to cost accounting. Consideration is also given to accounting principles and concepts, interpretation and analysis of financial statements, departmental operations, consignment, installment sales, branch accounting. Two hours lecture and two laboratory hours per week. Prerequisite: Accounting 183.

Acc. 203. **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 193 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 193 or the equivalent.

Acc. 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 account-

ing 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 193

Acc. 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 193.

B. A. 113. **Mathematics of Finance I.** (Credit: 3 semester hours).

This course is designed to meet the needs of students majoring in business and other related fields. This course includes a review of elementary topics of Algebra followed by a more intensive study of advanced topics in quadratic equations, inequalities, progressions, complex numbers, elementary theory of equations, permutations, combinations, logarithms, and applications to commercial problems. (Formerly taught as Algebra 113L).

B. A. 123. **Mathematics of Finance II.** (Credit: 3 semester hours).

Due to the great variety of financial problems arising in modern life, this course is of value to students of commerce and business administration, engineering, law, and liberal arts. The course includes an introduction to compound interest and compound discounts, ordinary and general annuities, amortization and sinking funds, bonds, permutations, combinations, probability and life insurance. Prerequisite: B. A. 113 or the Equivalent.

B.A. 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.

3. 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.

Ed. 123. **Personal and Community Health.** (Credit: 3 semester hours).

This course presents the fundamentals of personal health with personal hygiene, community health problems, causes and prevention of diseases, and consumer education included in the curriculum. The emphasis in the course will be upon problems of the college student and improved ways of living.

Ed. 133. **Introduction to Elementary Education.** (Credit: 3 semester hours).

This is a study of the theory and practice in the elementary school. This first course in elementary education is to orient the prospective elementary teacher with the issues, ideas, and concepts of the education of children at the elementary level. Some observing is done in the public schools.

Ed. 143. **Introduction to Physical Education.** (Credit: 3 semester hours).

This course is a brief introduction to the field of physical education, its philosophy, aims, objectives, principles, and potential values.

Ed. 183 (233). **Health Education.** (Credit: 3 semester hours).

This course is designed primarily for prospective school teachers. A brief period is devoted to health and hygiene, with a careful study of anatomy and personal hygiene. The major part of the course deals with methods and materials in health education. The following units are worked in the library and in the classroom: Care of the body, health examination, records, clothing, care of building and equipment, sanitation, buildings, equipment, curriculum, programs, control of communicable diseases, teaching methods and correlation, first aid, safety, and health materials to be used in each grade. Prerequisite: sophomore standing or Education 113.

Ed. 193. **The Elementary School Child.** (Credit: 3 semester hours).

Principles underlying the development of the elementary school child. This course will emphasize the physiological and sociological growth of the child and the meeting of the problems incident upon that growth. Prerequisite: 3 hours of education. Three hours per week for 18 weeks.

Ed. 213. **Teaching Physical Education in Elementary Schools.** (Credit: 3 semester hours).

Consists of methods and materials for physical education activities in the elementary schools. Includes low organized games, team game lead-ups, stunts and tumbling, track and field activities, rhythms, and physical fitness activities. Offers practical experience in observation and teaching. Prerequisite: Sophomore standing.

Ed. 223. **Health Education for Teachers in Elementary Schools.** (Credit: 3 semester hours).

This course presents the basic principles and methods of teaching health and the administration of the health program in the elementary school. Offers practical experience in teaching health lessons. Prerequisite: Sophomore standing.

O. 101. **College Orientation.** (Credit: 1 semester hour).

The first four weeks are devoted to general orientation to the college, library usage, preparing term papers, course selection, etc. During the last 14 weeks the topics are Vocational Planning, Personal and Social Adjustment, and Marriage and Family living will be taken up. Specialists in each field will have charge of the class. Required of all full time Freshmen students.

O. 101E. **College Orientation and 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. Two class hours per week.

Psy. 213. **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 to 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. Prerequisite: sophomore standing.

4. THE DEPARTMENT OF ENGLISH AND JOURNALISM

ENGLISH

E. 032. Fundamentals of Writing. (Credit: 0 semester hours).

This course will be required, after 1958, of all entering freshmen students who receive a low score on the entrance examination in English. Emphasis will be placed on these studies: spelling, punctuation, remedial reading, and paragraph writing.

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

This course aims to promote clearness and correctness of expression through practice in writing. It includes a review of the fundamentals of the technique of all prose writing. Standard freshman course.

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

Continuation of English 113. This course consists of the study of exposition, description, and narration as forms of prose composition and practice in writing each. Outside reading from standard authors supplements the theme work. English 113 and 123 are required for an Associate In Arts Diploma. Prerequisite: English 113.

E. 113E, 123E. Composition and Rhetoric. (Credit: 3 semester hours each semester).

These two freshman courses are open to students whose previous grades in English, background in the study of composition and rhetoric, and national test scores indicate ability to participate profitably in this accelerated course. Class meets for three lecture hours per week.

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. 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, romantic, and realistic styles. 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. Individual conferences will be held. Prerequisite: English 113 and 123 and sophomore standing.

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

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

E. 183. Composition: Expository Writing. (Credit: 3 semester hours).

This course is designed to offer further training and practice in composition to students with a special interest in writing and also to students who feel they need further help in the correction of individual weaknesses in grammar and mechanics. Emphasis is upon expository writing, vocabulary building, and improvement in both mechanics and style.

E. 193. Writing for Professional People. (Credit: 3 semester hours).

Exposition adapted to the needs of professional people, particularly those presently training for engineering, science, medicine, and other technical fields. Prerequisite: English 113 and 123. Three lecture periods per week.

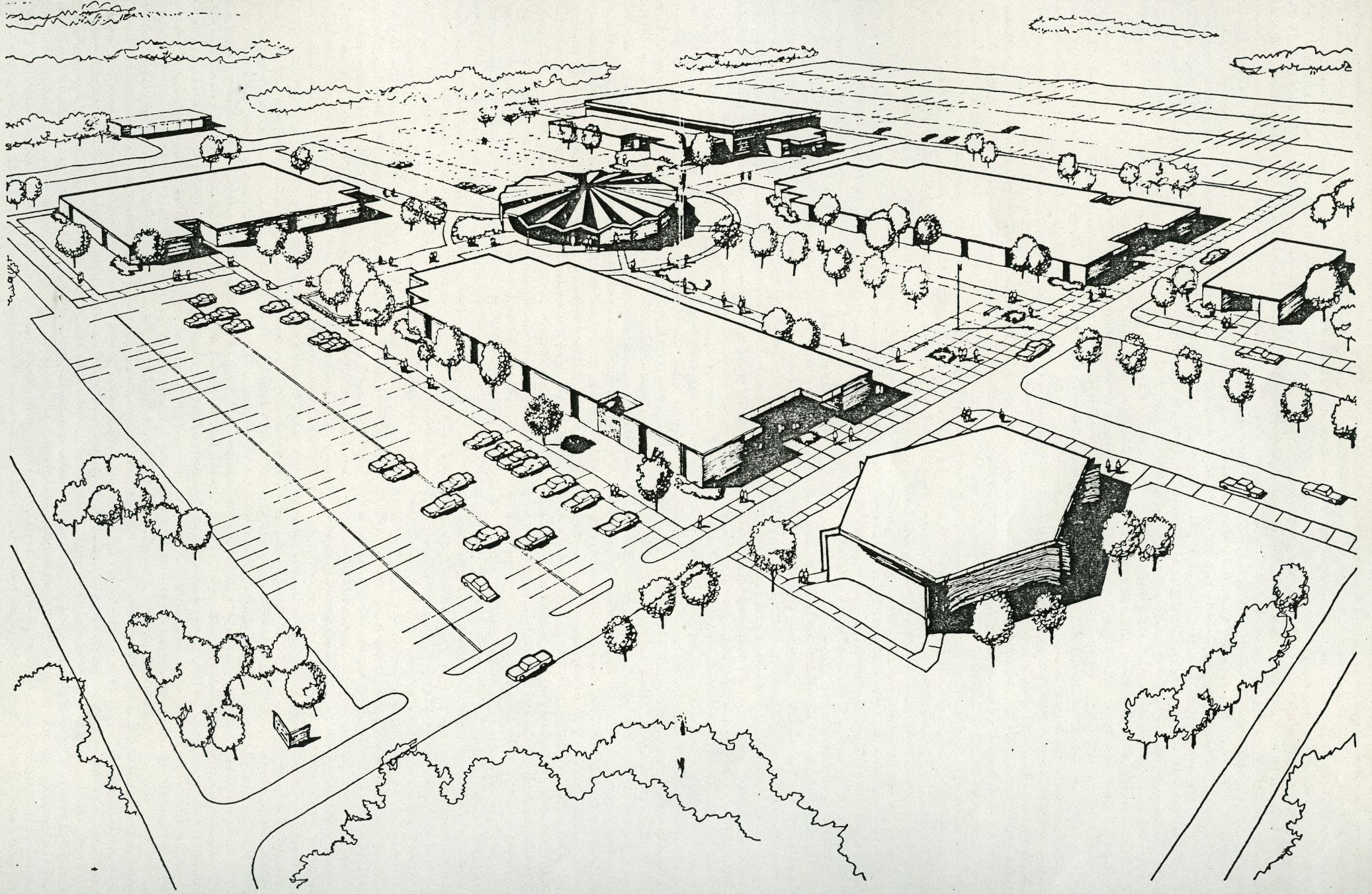
JOURNALISM

J. 113. Introduction to Journalism. (Credit: 3 semester hours).

This course is designed to serve as an introduction to the general field of journalism. Course material includes principles of communication, organization and history of various journalistic media, explanation of news, analysis of reader interests, and introduction to reporting and writing.

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 and on the student newspaper. For the terminal student, this course may serve as the introductory course in journalism. Prerequisite: A "C" grade in English and the consent of the class instructor. One lecture and one practice-lab hour per week for thirty-six weeks.



ALVIN JUNIOR COLLEGE

Alvin, Texas

5. THE DEPARTMENT OF FINE ARTS

ART

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

This is a special art course intended for both the general student and the prospective major. Subject matter unrestricted; individual and group criticisms. Two lecture and four laboratory hours per week. Prerequisite: Art 113 or the approval of the instructor.

Art. 113, 123. Design. (Credit: 3 semester hours each).

A two semester course giving laboratory practice as an introductory contact with the nature and practice of art together with basic knowledge and skills in design, color, and drawing.

Topics: Problems in design; lettering; color; drawing and painting; pencil, pen and ink, colored chalk, pastel, watercolor, tempera; textiles; linoleum blockprinting; wood and plaster carving; metal modeling; leather tooling. Required course for art majors. Elective course for non-art majors and needs no prerequisite. Two lectures and four laboratory periods per week. Prerequisite: Art 113 to register for Art 123.

C. A. 103H. 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. Two one-hour lecture periods and four one-hour laboratory periods per week.

C. A. 103J. Commercial Art II. (Credit: 3 semester hours).

An advanced course in commercial poster layout. Two lectures and four laboratory periods per week. Prerequisite: C. A. 103H.

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, 193. Art for Elementary Majors. (Credit: 3 semester hours each).

A two semester course in techniques of teaching art in the elementary grades.

Topics: Problems involving art lesson plans for teaching in the elementary grades. No prerequisite. Two hours lecture and four hours laboratory per week for thirty-six weeks.

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

A laboratory course in oil painting. Class will meet for six lecture-laboratory-hours per week. Course runs for the full 36 weeks. Prerequisite: D. P. 213 is a prerequisite to D. P. 223, and consent of instructor is needed.

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.

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

This course follows **Drawing and Painting 213, 223** with specialization in the study of different forms of organization of the picture surface in order to express various types of visual experience. Two lecture and four laboratory hours per week.

H.A. 133, 143. History of Art. (Credit: 3 semester hours each).

A two semester course which includes a survey of the art of Europe from prehistoric times, art of the ancient Mediterranean cultures, and art since the fifteenth century in Europe and in America. Prerequisite: None. Three one-hour lectures per week for 36 weeks.

MUSIC

Mu. 114-124. Harmony and Ear Training. (Credit: 8 semester hours).

A study of the principal and subordinate chords and their inversions in both major and minor modes. Training in sight singing and in hearing and playing chords.

Five hours per week. Two hours per week in harmony, two hours per week in sight singing and ear training, and one hour per week in keyboard harmony. Recommended especially for music majors.

Mu. 122B. Study of Percussion. (Credit: 2 semester hours).

Attainment of rudimentary playing on each of the following: snare and bass drums, tympani, cymbals, bells, and traps; study of methods and materials for teaching these instruments; one hour lecture, two hours laboratory per week.

Mu. 112RD-182RD. Study of Reeds. (1-2)

Attainment of fundamental playing on each of the following: flute, clarinet, saxophone, oboe, and bassoon. Study of methods and materials for teaching these instruments. One hour lecture, two hours laboratory per week.

Mu. 192BR. Study of the Cornet, French Horn, Baritone, and Bass. (Credit: 2 semester hours).

Attainment of fundamental playing on each instrument named above.

Piano 114, 124. Study for Piano Majors. (Credit: 8 semester hours).

For piano majors. Bach, two-part inventions; a Hayden, Mozart or Beethoven Sonata; Schubert, Impromptu; Mendelssohn, Songs without Words; Debussy, Arabesques. Ability to play simple accompaniments at sight.

Piano 214, 224. Study for Piano Majors. (Credit: 8 semester hours).

For piano majors. Three-part Inventions and Preludes and Fugues by Bach; Chopin, Waltzes and Nocturnes; numbers by Brahms, Prokofiev, or Scriabine. Piano majors will take two lessons per week with a minimum of three hours practice per day. Prerequisite: Piano 114 and 124.

Organ 114, 124. Study for Organ Majors. (Credit: 8 semester hours).

For organ majors. Bach little preludes and fugues; pedal studies; sight reading.

Organ 214, 224. Study for Organ Majors. (Credit: 8 semester hours).

For organ majors. Classical composition; improvisation, modulation, and sight reading. Composition by Franck, Mendelssohn, and Bach.

Organ majors will take two lessons per week with a minimum of three hours practice per day.

Harp 114, 124. Study for Harp Majors. (Credit: 8 semester hours).

For harp majors. Training in tuning and caring for the harp. Scales, arpeggios, and finger exercises; technical studies by Naderman and Bochsa; appropriate solos.

Harp 214, 224. Study for Harp Majors. (Credit: 8 semester hours).

For harp majors. Etudes by Hasselmans and Bochsa; pieces by Pierne, Tournier, Hasselmans and Grandjany.

Harp majors will take two lessons per week with a minimum of three hours practice per day. Prerequisite: Harp 114, 124.

Choir 111, 121, 211, 221. A Cappella Choir. (Credit: 1 semester hour each).

Alvin A Cappella Choir functions as the official choir for the Alvin Junior College. Tryouts are held for placement in either "A" or "B" Choirs. Required of all vocal majors, without credit; open to all other students for credit. Credit for academic and non-vocal majors: one hour per semester. Not more than six semester hours may be earned in an ensemble music course to count toward a degree or diploma. Two lecture and two practice hours per week.

A.M. 111 or 121, 211, 221. Applied Music. (Credit: 1 semester hour each).

Private lessons on any one of the following instruments: Organ, violin, piano, harp, clarinet, trumpet, or trombone. Student takes one lesson per week and practices one hour daily. The first letter of the name of the instrument is attached to the course letter: i.e., A.M. 111-O indicates lessons on the Organ. Detailed course plan is filed with the registrar at the beginning of each course and a progress chart is turned in at the end of the course.

A.M. 112, 122, 212, 222. Applied Music. (Credit: 2 semester hours each).

Same as A.M. 111, et al, except that the student takes two lessons per week and practices two hours per day. The first letter of the name of the instrument is attached to the course number; i.e., A.M. 112-P indicates lessons on the piano.

Mu. 113, 123. Music Appreciation. (Credit: 6 semester hours).

Acquaintance with music masterpieces and styles of compositions through study of and listening to recordings, radio broadcasts, student performances, also by attending concerts and using audio-visual aids. Analysis of the more important musical forms. Comparative study of 18th, 19th, and 20th century music. Two hours lecture and two listening hours per week.

6. 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.

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. Two lecture, two laboratory hours per week.

Span. 253, 263. **Advanced Conversation and Composition.**

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.

Spanish 233. **Readings in Spanish-American Literature Before 1890.** (Credit: 3 semester hours).

Selected readings of Spanish-American prose and poetry, tracing literary movements along with historical movements in chronological order from earliest times to 1890. Outside reading assignments. Emphasis placed on both oral and written compositions. Conducted in Spanish. Prerequisite: Spanish 183-193.

Spanish 243. **Readings in Spanish-American Literature After 1890.** (Credit: 3 semester hours).

Selected readings of Spanish-American prose and poetry, concentrating on the contemporary novel since 1890. Outside reading assignments. Emphasis placed on oral and written composition. Conducted in Spanish. Prerequisite: Spanish 183-193.

Span. 133. **History of the Americas Since 1804.** (Credit: 3 semester hours).

Credit for this course and History 143 may not be earned. This is a history course given in Spanish. Lectures, films, talks, drills, using the language laboratory. Written permission is necessary from the Department to take the course in Spanish.

Span. 143. **History of the Caribbean Area and Mexico.** (Credit: 3 semester hours).

This history course will be given entirely in Spanish. This course cannot be transferred, usually, to a senior college for credit on an advanced level, but rather may count as elective credit in history. The language laboratory will be utilized for oral work. Three lecture hours per week and at least an average listening or practice time of two hours each 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. Two hours lecture and two hours laboratory per week.

Port. 114, 124. **Beginner's Portuguese.** (Credit: 8 semester hours).

This is the first year's course in Portuguese for students who have had no previous instruction in this language. Stress will be placed on both grammar study and on oral work, using the language laboratory for drill and for practice sessions. Three lecture hours and two laboratory hours per week for 36 weeks.

7. 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.

8. 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). *3 credit class*

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 will consist 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: M. S. 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 hours 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 hours 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.

9. THE DEPARTMENT OF MATHEMATICS

(A student may not count more than one Algebra course on transfer to a Senior College).

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

This course includes a 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, and combinations.

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. 113L. **Algebra for Business Majors.** (Credit: 3 semester hours).

This course is now listed as B. A. 113 in the Department of Business Administration.

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. Credit may be counted on the A.A. diploma, but credit is not recommended for transfer to a senior college. Formerly Alg. 133.

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

This is a course for pre-engineers and if selected should be taken concurrently with Physics 184. It is designed to introduce the student to elementary problems from all fields of engineering. Particular emphasis is placed on learning to manipulate the slide rule with speed and accuracy. Two lecture-laboratory hours per week for 18 weeks. (Prerequisite: Alg. 103 or 113, and Trig. 123).

Geom. 103M. Introductory Geometry. (Credit: 3 semester hours).

A course in plane geometry open to students who cannot satisfy the plane geometry pre-requisite for Trigonometry 123. Credit for this course may not be used to satisfy normal senior college degree requirements and will not be allowed to students who use high school geometry for college entrance. Some course in plane geometry is required of all pre-engineering students.

This course takes up the elements of plane geometry with application to congruent triangles; parallel lines; angles of a triangle; angles of a polygon; congruent right triangles; quadrilaterals; distance; inequalities; bisectors, medians, altitudes; chords; tangents and secants; angles in circles; locus; proportion; similar triangles and similar polygons.

S. Geom. 103. Solid Geometry. (Credit: 3 semester hours).

This course is required of all students who plan to be candidates for engineering degrees and who do not have a solid geometry credit to present for entrance. This course or high school solid geometry is often a prerequisite for calculus. Prerequisite: Plane Geometry.

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. Prerequisite: Algebra 113 and High School Plane Geometry.

An. 114. Analytic Geometry. (Credit: 4 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, parametrics and space formulas, with special emphasis on rapid curve sketching. Prerequisite: Algebra 113 and Trig. 123.

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 per week. Prerequisite: An. 114.

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: Analytic Geometry 114.

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 or 225.

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: Analytic Geometry 114.

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.

M. 193. Mathematics of Finance. (Credit: 3 semester hours).

This course is now listed as B. A. 123 in the Department of Business Administration.

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. A survey of modern programs will be made with particular emphasis on the elements of SMSG material. Offered for the first time at Summer Session, 1963.

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.

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.

E.P. 113. General Engineering Problems and Applications. (Credit: 3 semester hours).

A course in practical problems with emphasis upon the use of the slide rule, significant figures, motion, and including some areas of work and energy. Two lecture hours and three laboratory hours each week. Prerequisite: Algebra 113 and enrollment in Technical Mathematics.

10. THE DEPARTMENT OF PHYSICAL EDUCATION

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

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

P. E. 231, 241, 211, 221. Physical Education for Sophomore Students. (1 ea.)

Ed. 123. Personal and Community Health. (See Dept. of Education).

Ed. 143. Introduction to Physical Education. (See Dept. of Education).

Ed. 183. Health Education. (See Dept. of Education).

Ed. 213. Teaching Physical Education in Elementary School. (See Dept. of Education).

Ed. 223. Health Education for Teachers in Elementary Schools. (See Dept. of Education).

11. 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. 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. 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.

B. 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.

B. 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.

Zoo. 133. Invertebrate Zoology. (Credit: 3 semester hours).

A systematic study of the invertebrate phyla terminating with the mollusca. Bio. 133 and 143 are primarily designed to meet the needs of students who are pushing a pre-medical, pre-dental, pre-laboratory technician or biological science major. Special emphasis is placed on microscope technique, drawing technique, and the overall ability to follow laboratory instructions. Three hours of lecture and three hours of laboratory per week.

Zoo. 143. Vertebrate Zoology. (Credit: 3 semester hours).

A continuation of Bio. 133. The structure and physiology of representative vertebrates with special emphasis on the frog as the vertebrate type are studied. Three hours of lecture and three hours of laboratory per week.

Bio. 213-223. Human Anatomy and Physiology. (Credit: 6 semester hours).

The study of the physiology and anatomy of the organ systems of the body. Recommended for home economics and physical education majors. Three hours of lecture and three hours of laboratory per week for the full year. Prerequisite: Bio. 114 or consent of the department.

B. CHEMISTRY

Chem. 113-123. General Chemistry. (Credit: 6 semester hours).

A general course which is designed for those students who do not intend to do further work in science or engineering. The first semester is devoted to a study of the atomic-molecular theory, valence, formulae chemical equations, solutions and practical applications.

The second semester's work consists of a study of electro-chemistry, oxidation-reduction reactions, radiation chemistry, elementary qualitative analysis and organic chemistry. Three hours of lecture and two hours of laboratory per week. Prerequisite: Alg. 103.

Chem. 133. College Chemistry I. (Credit: 3 semester hours).

A general course which is designed for those students who intend to become nurses or practical laboratory technicians. During the semester the scientific method, metric measurement, atomic-molecular theory, formulae, chemical equations, weight relations, solutions and their practical applications are stressed. Three lecture and two laboratory hours a week. Prerequisite: Algebra 103.

Chem. 141. College Chemistry II. (Credit: 1 semester hour).

A laboratory course in which use of analytical balances, titrations, distillations, extractions, simple chemical analysis, and simple chemical preparations are included. Four laboratory hours a week. Prerequisite: Chemistry 133 or consent of the instructor.

Chem. 134. College Chemistry. (Credit: 4 semester hours).

A laboratory chemistry course designed for nursing students and those studying to become practical laboratory technicians. During the semester the scientific method, metric measurement, atomic-molecular theory, formulae, chemical equations, weight relationships, solutions and their practical applications are stressed. The student also works with the following subjects in the laboratory: analytical balances, titrations, distillations, extractions, simple chemical analysis, and simple chemical preparations. Three hours of lecture and four hours of laboratory a week. This course includes material covered in Chemistry 133, 141 and credit may not also be counted in Chem. 113-123 or Chem. 133, 141. Prerequisite: Algebra 103.

Chem. 114-124. General Inorganic Chemistry and Qualitative Analysis. (Credit: 8 semester hours).

A technical course in inorganic chemistry and qualitative analysis, based upon and an extension of H. S. Chemistry. Emphasis is placed on chemical mathematics and report writing. The first semester is devoted to a comprehensive review and extensions of basic principles, with emphasis being placed on the latest atomic-molecular concepts, chemical equations, equilibria, solutions and electrochemistry. The second semester's work consists of a study of several less-common elements in each periodic group, and the general principles of qualitative analysis, using semi-micro techniques in the laboratory. Three lecture and four laboratory hours per week. Prerequisite: High School Chemistry or the equivalent, or consent of the department.

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

Theory and practice of gravimetric and volumetric procedures and the stoichiometric calculations involved. Acceptable for pre-medical requirements. Two hours of lecture and six hours of laboratory per week for one semester. Prerequisite: Chem. 124 and Alg. 113.

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

Elementary Organic Chemistry is a course designed to serve chemistry, pre-medical, and pharmacy students. Emphasis is upon present day theories and chemical principles that relate to everyday phenomena. Hydrocarbons, acids, ethers, alcohols, anhydrides, esters, aldehydes, ketones, amines and halogen compounds are studied. Prerequisite: Chem. 114-124. Three lecture and four laboratory hours per week.

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

A continuation of the first course in organic chemistry. Prerequisite: Chem. 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 selected from physics, chemistry, geology, astronomy, and metrology to illustrate the philosophy and methods of science. Special problems in mechanics and heat. Three lecture and two laboratory hours per week for 36 weeks. Prerequisite: Alg. 103.

Phy. 184K. Mechanics. (Credit: 4 semester hours).

This course is designed for students who intend to major in physics or chemistry. May be taken by prospective engineering students who do not have admission credit for physics. A study of velocity, acceleration force, energy, and other fundamental concepts of physics; together with vector algebra. Three lecture hours and four hours of laboratory each week. Prerequisite: Credit or registration for analytic geometry.

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.

12. THE DEPARTMENT OF SOCIAL SCIENCE

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

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, French, 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.

H. 101N, H. 101S. Introduction to the History of International Relations Activities. (Credit: 1 semester hour per course).

History of international relations, developments in U. S. diplomatic history, Latin America and Pan Americanism, and the development of international trade. One lecture and 1 laboratory hour per week.

H. 103. Current History and Public Affairs. (Credit: 3 semester hours).

Contemporary events and movements. This course is designed especially to acquaint the student with the major problems confronting the American people in both domestic and international affairs.

H. 183K. Basic Books in U. S. History to 1865. (Credit: 3 semester hours).

This is a reading and lecture course which gives to the student an understanding of some of the great books in the field of history, their effect on society, and the authors who wrote them. Credit toward graduation is not given for both History 183 and 183K.

GEOGRAPHY

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

Students are introduced to the study of human society in relation to the physical conditions and resources of the earth in this course. Physical features studied in lecture and special studies, such as field trips. Prerequisite: Sophomore standing or consent of department. Three lecture periods per week.

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. 233. Constitutions. (Credit: 3 semester hours).

European and colonial background of the United States Constitution, formation of the document, and the Constitution in operation. Constitutional history of Texas; consideration of procedures under the document and of proposals for change. Prerequisite: Sophomore standing.

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 advertising; 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. (Credit: 3 semester hours).

A study of the basic principles of economics with emphasis on production, exchange, value, distribution, consumption, and saving; the institutions through which each of these principles operates in a capitalistic economy; industrial and business organizations; money and credit; price; wages; interest; profit.

Eco. 193. Economic Problems. (Credit: 3 semester hours).

A study of the economic problems arising from the interaction of economic institutions; problems of labor, finance, business cycles, international economics, governmental control; a study of major forms of economic collectivism.

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

Soc. 103. 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. 113. Principles of Sociology. (Credit: 3 semester hours).

This course is designed particularly for the social science major, the social welfare worker, and the person who may specialize in personnel problems. Material which is studied in this course is designed to present the viewpoint and the fundamental principles of the field of sociology. Three lecture hours per week for 18 weeks.

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.

13. THE DEPARTMENT OF DATA PROCESSING

DPT. 103C. Introduction to Data Processing. (Credit: 3 semester hours).

All data processing systems, regardless of size, type or basic use, have certain common fundamental concepts and operational principles. This course is not an introduction to any specific machine, but rather is intended to provide a foundation for a future detailed study of specific systems. It describes the evolution of computer systems—from manual methods to the stored program. Lectures include an introduction to problems organization, detailed coverage of storage media, fundamentals of input and output operations, and elementary programming techniques. A three-address programming system will be introduced near the end of the course to provide the student with training in actually writing a program as well as indicate to the student the operations a computer must perform in order to store data, perform calculations, make decisions, and provide results. Two hours lecture and two hours laboratory per week. Prerequisite: Consent of the department.

DPT 103D. Unit Record Equipment Operation. (Credit: 3 semester hours).

This course is a survey of unit record equipment. It illustrates the need for machine-processable solutions to accounting and record keeping. The concept, power and flexibility of the unit record approach are imparted to the student. Unit record equipment as an independent system is discussed and studied throughout the course. In addition to this emphasis, its use with and support for computers will be included. Laboratory exercises are executed, involving planning, operation of the equipment, and elementary wiring techniques will be introduced. Practical exercises offered are typical of those performed in existing computer installations. Two lecture and two laboratory hours per week. Prerequisite: Consent of the department.

DPT 103E. Technical Mathematics for Data Processing. (Credit: 3 semester hours).

The purpose of this course is to (1) provide a practical foundation upon which data processing problem solving can be based and (2) discipline the students in the art of logical decision making, using mathematics as the vehicle. This course treats primarily the numerical, rather than the theoretical, solution to problems. The principles presented will be applied (and therefore reinforced) in the Computer Programming and in the Statistics courses. Prerequisite: Alg. 113, B. A. 113, or the Equivalent.

DPT 103F. Advanced Control Panel Wiring. (Credit: 3 semester hours)

This course is designed to acquaint the student with the various control panel wiring techniques for Unit Record Equipment. Basic techniques for preparing and handling data will be covered in detail. Laboratory exercises are executed involving a wide range of planning and wiring

for the IBM 085, IBM 514, IBM 402, IBM 407, IBM 534, IBM 1232, and IBM 548. In addition the lectures and laboratory exercises will cover the basic wiring principles of the IBM 403, IBM 604, IBM 602, and other widely used Unit Record Equipment. Two hours lecture and three hours laboratory per week. Prerequisite: DPT 103D or Consent of the Department.

DPT 103G. Computer Programming I. (Credit: 3 semester hours).

This course provides the concepts, and therefore the foundation for detailed study of data processing machines and computer programming. The student engages in the study of the functions and capabilities of the IBM 1620 Data Processing System as well as basic programming for the IBM 1620. The student performs programming drills, exercises, and case studies which serve to bridge the gap from the academic to the real world of data processing. The student will study and write programs in MACHINE LANGUAGE, SPS, and AUTO-CODER. The laboratory sessions further reinforce basic principles by providing "hands-on" training on the IBM 1620. Two hours lecture and three hours laboratory per week. Prerequisite: DPT 103C or the consent of the department.

DPT 103T. Key Punch and Office Procedures. (Credit: 3 semester hours).

Fundamental principles and operation of punched card machines including key punch, sorter, interpreter and accounting machines, with emphasis on card punching, control cards and organization and sequence arrangement of data and its application in office procedure. Two hours lecture and two hours laboratory per week. Prerequisite: Consent of the department.

DPT 103S. Seminar. (Credit: 3 semester hours).

This is intended to be a survey course in Data Processing for administrative and management personnel. The basic objective of this course is to acquaint the student with the potential and limitations of a Data Processing System. The lectures will cover the following topics: problems that arise in changing from manual methods to Data Processing; the ways Data Processing can serve management; the adaptation of a Data Processing System to certain types of business operations; and other appropriate topics of interest. The student will have opportunity to observe the operation of a Data Processing Center which will have both Unit Record Equipment and an IBM 1620 computer. Three lecture hours per week. Prerequisite: Consent of the department.

DPT 203C. 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 in-

tegrated 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. Three hours lecture and two hours laboratory per week. Prerequisite: DPT 103F, DPT 103G, Acct. 193, or the consent of the department.

DPT 203D. 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 and Machine Language, as well as an introduction to COBOL. The laboratory sessions will enable the student to actually run his programs in Fortran, Gotran, and Machine Language on the IBM 1620. 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 on an algebraic or statistical nature on a computer. Two hours lecture and three hours laboratory per week. Prerequisite: DPT 103C and DPT 103E or consent of the department.

DPT 203E. Accounting Systems and Data Processing. (Credit: 3 semester hours).

This course has as its primary purpose the development of a unified accounting system with respect to data processing. The unit medium, whether it be a business paper, a punched card, a segment of a punched tape or a segment of a magnetic tape, is given primary consideration throughout the course. The major data processing systems in the sales, purchasing, payroll, production control, and cost area of business are used as a vehicle for the presentation of system work. The analyzing and synthesizing of various accounting systems will include a careful study of design and evaluation of procedural flow, automatic controls, internal checks and audit trails. The laboratory exercises will include several case studies in order to give reality to certain problems that are difficult to examine in the abstract. The student will program certain problems and run his program on the IBM 1620 Data Processing System. Two hours lecture and three hours laboratory per week. Prerequisite: DPT 203C and Cost Accounting or the consent of the Department.

DPT 203F. 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 labora-

tory exercises will include writing programs in FORTRAN and various other commonly used languages as well as running the FORTRAN programs on an IBM 1620 computer. Three hours lecture and two hours laboratory per week. Prerequisite: DPT 103C and Cal. 213 or the consent of the department.

DPT 203G. Computer Programming IV. (Credit: 3 semester hours).

The objective of this course is to provide the student with sufficient knowledge of programming systems concepts so that he may easily master any specific system with a minimum of instruction. Furthermore, he will be qualified to analyze, evaluate and make minor modification to such systems. It is not intended that the actual programming languages of the various systems be taught. However, individual phases of certain selected systems are treated in detail in order that the student may learn advanced programming and logic decision techniques that are applied in sophisticated systems. Three lecture and two laboratory hours per week. Prerequisite: DPT 103G and DPT 203D or the consent of the department.

14. THE DEPARTMENT OF SPEECH AND DRAMATICS

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.

DRAMATICS

Dr. 183. Dramatic Arts. (Credit: 3 semester hours).

Fundamentals of the art of drama; a study of dialogue, interpretation, and characterization; a study of the fundamentals of make-up and costuming; technical elements of production; history of the development of the drama; significance and aspects of present-day theatre.

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

Students are given the opportunity to participate in an extensive manner in theatre activities. Student must complete activities in at least two of these areas: make-up, costuming, acting in a play, student direction, and stage settings.

S. 191. Forensic Activities. (Credit: 1 semester hour).

Students at Alvin Junior College who wish to do so may enroll for forensic activities and secure credit, provided that the student has applied himself extensively in one or more of these areas: speaking in public, radio work, and debate.

VII. 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, annual included.
- 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.

TECHNICAL DIVISION

PART VIII

ALVIN

**JUNIOR
COLLEGE**

Alvin, Texas 9/1/64
Published at Alvin, Texas, for
use by students, faculty, education-
al institutions, and business firms.

**For:
1964-65**

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.

NOTE: The program for Data Processing Technology will begin as a full program in September 1963; the Drafting Technology will begin on a limited basis; the Chemical and Electronics Technology will be inaugurated for the 1965-66 school year, if possible.

A. OBJECTIVES

GENERAL:

The technical curriculum at Alvin Junior College aims to:

- (1) Prepare the graduate of the program to be employable and immediately productive in one of four fields: Chemical Technology, Drafting Technology, Electronics Technology, and Data Processing Technology.
- (2) Advance 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, plus one additional item to give meaning to objective 4 listed above:

- (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.

ALVIN JUNIOR COLLEGE

ALVIN, TEXAS

(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.

I. DATA PROCESSING 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 Science Degree.

COURSES: First Year

Introduction to College Accounting, Acct. 183	(3)
Composition and Rhetoric, English 113	(3)
Algebra for Business Majors, B.A. 113	(3)
The United States to 1865, History 183	(3)
Introduction to Data Processing, DPT 103C	(3)
Unit Record Equipment Operation, DPT 103D	(3)
Introduction to College Accounting, Acct. 193	(3)
Business Machines and Machine Accounting, B.A. 183	(3)
The United States since 1865, Hist. 193	(3)
Technical Mathematics for Data Processing, DPT 103E	(3)
Advanced Control Panel Wiring, DPT 103F	(3)
Computer Programming I, DPT 103G	(3)

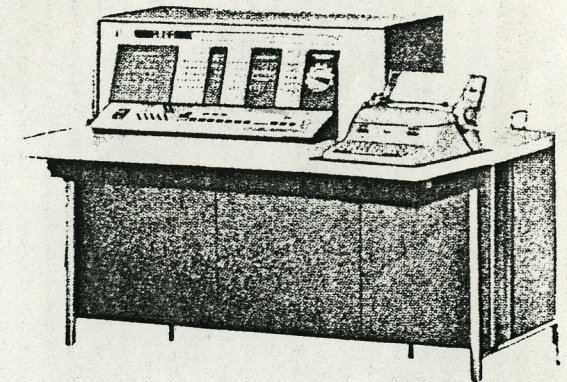
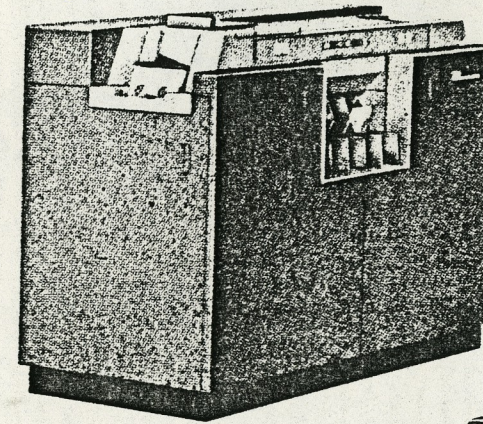
Second Year

Cost Accounting, Acct. 273	(3)
Principles of Economics, Eco. 183	(3)
American National and State Government, Govt. 213	(3)
Data Processing Applications, DPT 203C	(3)
Computer Programming II, DPT 203D	(3)
Technical Report Writing, Eng. 133	(3)
Fundamentals of Speech, S. 113	(3)
Statistics, B.A. 213	(3)
Accounting Systems and Data Processing, DPT 203E	(3)
Elective	(3)

CREDIT: 60-66 semester hours

DIPLOMA: Associate in Science

Suggested Electives: B.A. 123, Economics 193, Government 223, DPT 103T, DPT 203F, Law 213, Accounting 283, DPT



DATA PROCESSING TECHNOLOGY

For

BUSINESS APPLICATIONS

ENGINEERING

SCIENTIFIC RESEARCH

YOU can now prepare for your place in the space age by earning an ASSOCIATE IN SCIENCE DEGREE in the new two-year program which began FALL SEMESTER 1963.

THE NEED — FOR DATA PROCESSING TECHNOLOGY

The new requirements of modern business, industry and science have created a tremendous demand for persons skilled in the technical field of data processing.

Skilled handling and control of business records and accounts, inventory, sales, income, and expenditures are essential to management decisions.

United States Department of Labor statistics indicate that seven positions will be available during the next decade for every five qualified persons. By 1970 it is estimated that the data processing industry will employ three million people; it now has less than one-third that number.

At the same time, all projections indicate a lessening demand for unskilled workers. This is the opportune time to prepare for a challenging and rewarding position in this growing field.

The data processing technician works side by side with the business executive, accountant, graduate engineer, or scientist. The computer is an amazingly rapid and versatile tool, but it must be "told" exactly what to do and how to do it.

The technician must analyze the specific problem at hand and devise a way to instruct or "program" the computer to achieve the desired results. The possibilities are limited only by the skill and ingenuity of the programmer.

Opportunities in the data processing field range from key punch and basic machine operator to the computer programmer and systems analyst. Many new industries in engineering, electronics, missiles, and manufacturing have recently moved or will move in the near future to Texas—many to Harris, Galveston, and Brazoria Counties—bringing wide demand for persons with technical training. The N.A.S.A. Installation at Clear Lake will require many qualified technicians in data processing. Data Processing is of ever-increasing importance.

THE ANSWER — AT ALVIN JUNIOR COLLEGE

The newly established Department of Data Processing Technology at Alvin Junior College offers courses leading to an Associate in Science Degree and qualification as a computer programmer.

The balanced two-year curriculum draws upon the offerings of other departments to provide courses in general education and supporting subject matter for specialized technical studies.

The two-year curriculum has four consecutive semesters of work. At the end of the First Semester the student is a qualified operator of electromechanical equipment concerned with data processing. At the end of the Second Semester he is qualified to supervise and operate most of the existing data processing unit-record equipment. By completing the Third Semester he becomes qualified as an assistant programmer.

II. 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)
General Engineering Problems, E.P. 113	(3)
Composition and Rhetoric, Eng. 113	(3)
Technical Mathematics I, Math 103D	(3)
General Physics	(4)
Descriptive Geometry, D.G. 183	(3)
Machine Drafting, Dft. 104D	(4)
Technical Report Writing, Eng. 133	(3)
Technical Mathematics II, Math 103E	(3)
General Physics	(4)

Second Year

Architectural Drawing, A.D. 113	(3)
Construction Drafting, Dft. 204D	(4)
Strength of Materials, Phy. 233	(3)
Government 213	(3)
History 183	(3)
Pipe Drafting, Dft. 204E	(4)
Surveying, E.D. 102	(2)
History 193	(3)
Elective *	(3)

CREDIT: 60-65 semester hours

DIPLOMA: Associate in Science

*Suggested Electives: Dft. 203F, Structural Drafting; Machine Shop 183; Psychology 213; Sociology 213; Economics 183; Speech 113 or 123; Geography 183; Government 223.

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: (For Technical Division only)

Resident of Texas Student:

Tuition is \$8.00 per semester hour; maximum tuition is \$65.00 for a full load.

Out-Of-State Student:

Tuition is \$17.00 per semester hour; maximum tuition is \$200.00 for a full load.

Summer School Tuition: Ten dollars per semester hour. (\$10.00).
Auditors pay same tuition.

Laboratory Fees: See Bulletin of Data Processing Technology and the Technical Division Booklet. (\$2.00-8.00).

INDEX

Accreditation	6
Administrative Officers	7
Adult Education	79
Board of Education	7
Calendar	5
Course Listings	34
Courses of Study	39
Agriculture	39
Business Administration	39
Data Processing	73
Drafting Technology	89
Dramatics	77
Education and Psychology	44
English	46
Fine Arts	
Art	50
Music	51
Foreign Language	
French	55
Portuguese	55
Spanish	54
Home Economics	56
Industrial Arts	57
Journalism	47
Mathematics	61
Technical Math.	64
Physical Education	65
Science	
Biology	65
Chemistry	66
Physics	68
Social Science	
Economics	71
Geography	71
Government	71
History	69
Sociology	71
Speech	77
Technical Division	83
Data Processing	86
Drafting Technology	89
Tuition and Fees	90
Curricular Suggestions	29

INDEX

Data Processing Technology	86
Faculty	7
General Information	10
Adding and Dropping Courses	15
Admission Requirements	13
Affiliations	13
Attendance Requirements	17
Classification of Students	19
Grades and Reports	18
Guidance	20
History of College	10
Objectives	12
Organized Activities	19
Scholastic Probation	20
Student Council	20
Student Load	17
Student Conduct	18
Withdrawals	16
Graduation Requirements	26
Library	28
Numbering of Courses	21
Registration Procedure	27
Scholarships	21
Technical Division	33
Tuition and Fees	23