

# Central Texas College



1969-1970 CATALOG

# Central Texas College



"Whoever increases knowledge multiplies the uses to which he is able to turn the gift of his Creator."

—John Quincy Adams



An excerpt from Dr. Morton's speech introducing President Lyndon Baines Johnson:

"How fitting it is that one so concerned with the cause of education and so dedicated to the welfare of our servicemen, should dedicate a college so committed to helping not only our local citizens, but also the men in uniform who come from all parts of this Nation. No greater honor could come to Central Texas College than to have The President of the United States of America dedicate this new and dynamic institution of higher learning. The honor is doubly significant because the man who holds this highest office is a great humanitarian—dedicated to the causes of freedom, peace, and education in our land and throughout the world."

# *Central Texas College*

A Public Co-Educational Institution

Second General Catalogue

1969-1970

## **Member of**

AMERICAN ASSOCIATION OF JUNIOR COLLEGES

TEXAS ASSOCIATION OF JUNIOR COLLEGES

TEXAS ASSOCIATION OF PUBLIC JUNIOR COLLEGES

TEXAS ASSOCIATION OF COLLEGIATE REGISTRARS

AND ADMISSIONS OFFICERS

## **Affiliate Membership**

ASSOCIATION OF TEXAS COLLEGES AND

UNIVERSITIES

## **Approved by**

COORDINATING BOARD

TEXAS COLLEGE AND UNIVERSITY SYSTEM

TEXAS EDUCATION AGENCY

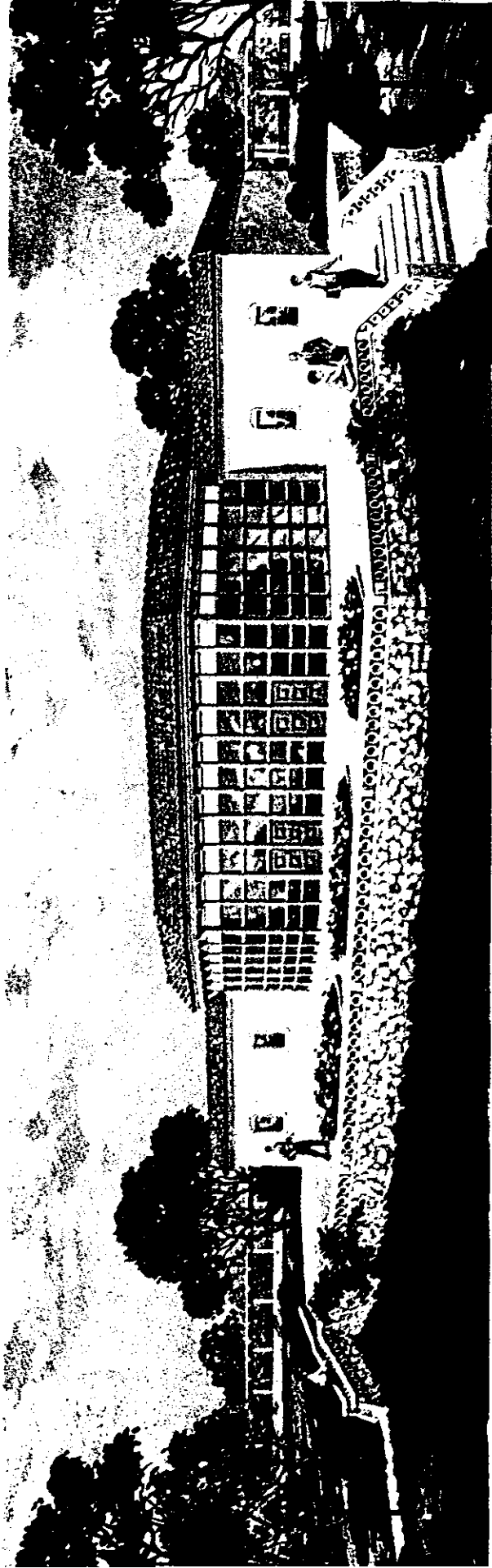
## **Listed in**

REPORT OF CREDIT GIVEN, 1968

by

AMERICAN ASSOCIATION OF COLLEGIATE

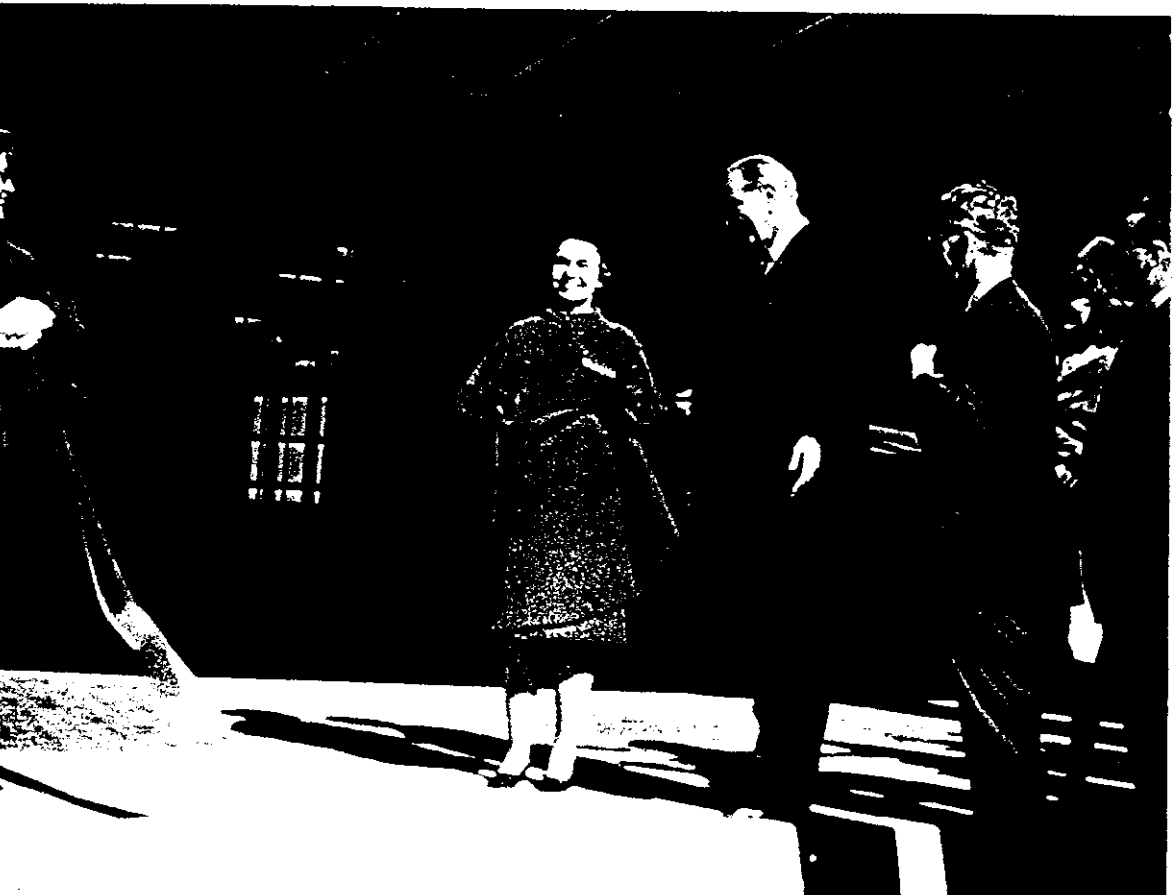
REGISTRARS AND ADMISSIONS OFFICERS



Oveta Culp Hobby Memorial Library



Board President William S. Bigham reads the resolution dedicating the Central Texas College Library in honor of Mrs. Oveta Culp Hobby.



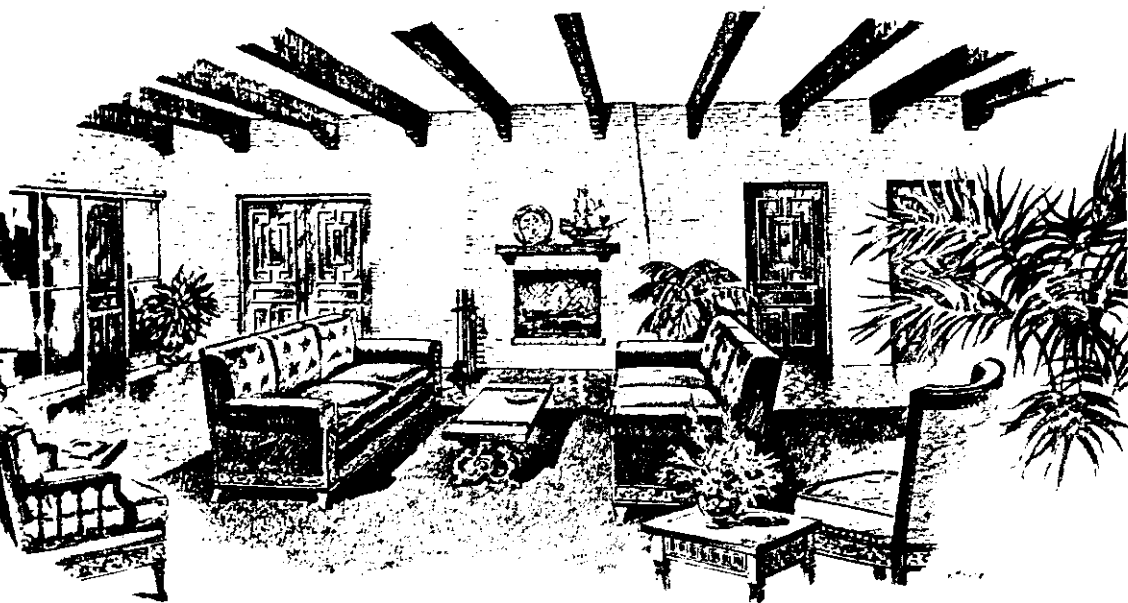
President Johnson, Mrs. Hobby, and Dr. and Mrs. Morton at the ribbon cutting ceremony officially dedicating the Oveta Culp Hobby Memorial Library.



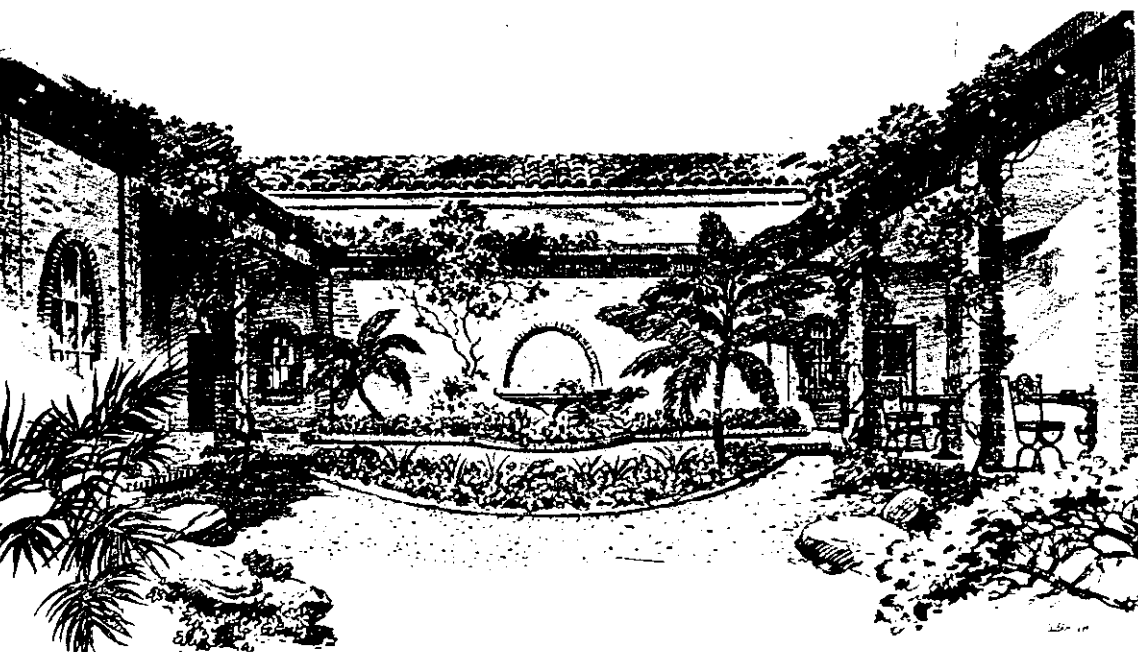
A Residence Hall Bedroom



Lobby of Student Residence Hall



Lobby of the Student Services Occupations Center.



Inner Courtyard of the Student Services Occupations Center.



Central Texas College has two air-conditioned and luxuriously decorated dormitories—one for men and one for women.





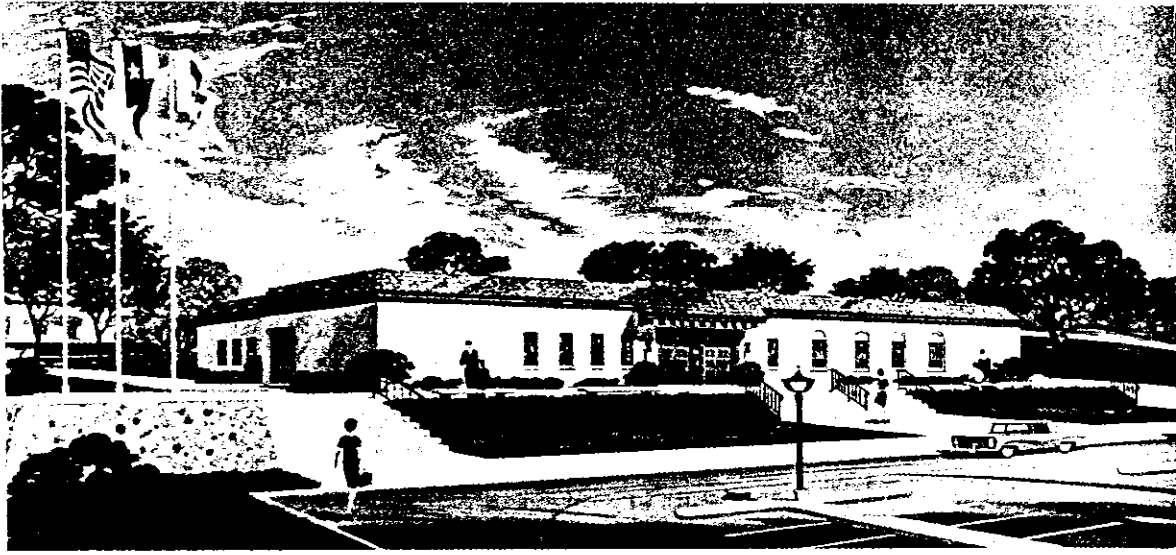
The beautiful new Student Services Occupations Center.



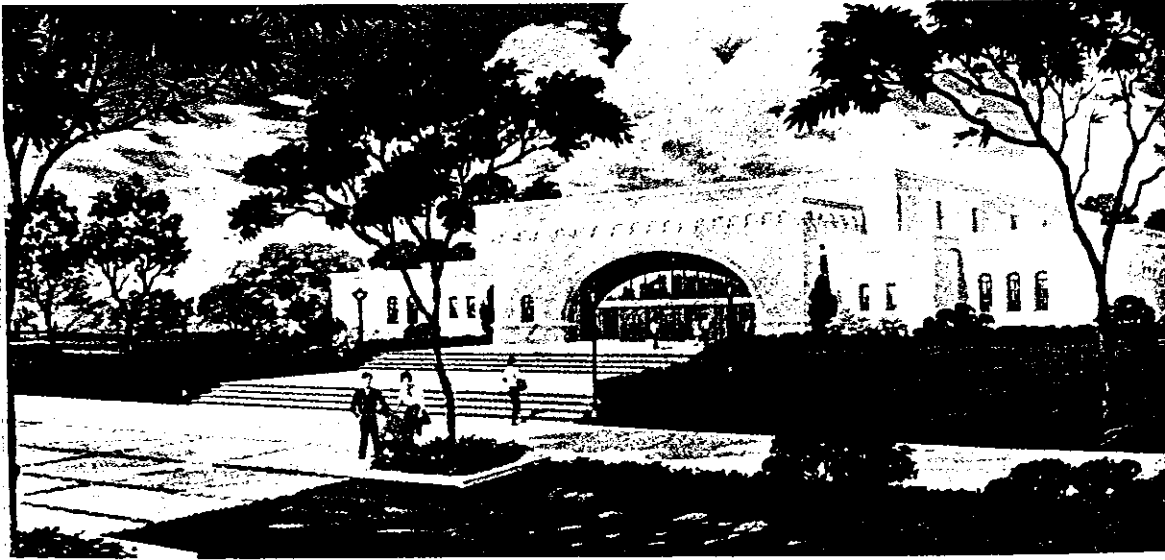
Fine Arts Building to be constructed in 1969.



Science and Academic Buildings



Central Texas College Administration Building



Physical Education Building

## A MESSAGE FROM THE PRESIDENT



**Dr. LUIS M. MORTON, JR.**  
President  
Central Texas College

It is with great enthusiasm and sincere emotion that I welcome the second class to Central Texas College. Many of you were numbered among the original founding students who contributed so much to this fresh and dynamic institution of higher learning. You began new traditions as you showed your love and devotion for Central Texas College. Those of you who come for the first time will find the work of building and molding this institution has truly just begun. Yours will be the task of laying not only the cornerstones to new buildings, but of erecting enduring values which will benefit humanity.

When the 36th President of the United States, Lyndon Baines Johnson, honored us by dedicating Central Texas College, he did so to the service "of all the people". By this he meant that it was the sacred duty of everyone associated with this institution to do everything in their power to help as many people as would be humanly possible, to the end that they too become productive citizens of this great society and share in the happiness which comes with achievement and success.

You will be called upon on more than one occasion to show your worth by the mastery of your academic tasks, by your respect for the rights of all, and by abiding by the laws which regulate this nation, this state, and this college. The words, "Discipline and Dedication" as they are found on the Seal of Central Texas College have deep significance in the philosophy and history of the United States. To many of the people who helped establish this college, they mean simply that each of us does the best that he can to serve each other within the limits of the talents God has given us.

To my generation, which has already received so many, many benefits from this land, we say to those who preceded us: "Thank you for your heritage." To the younger generation whom we strive to serve, we say: "Help us to continue the task of education and leadership passed on to us." As you pass the tower at the front of the College, stop for a moment and read the plaque on which you will find these words inscribed: "Every generation sacrifices for the next." I feel sure it was intended to remind both young and old that each has a strong obligation to serve humanity.

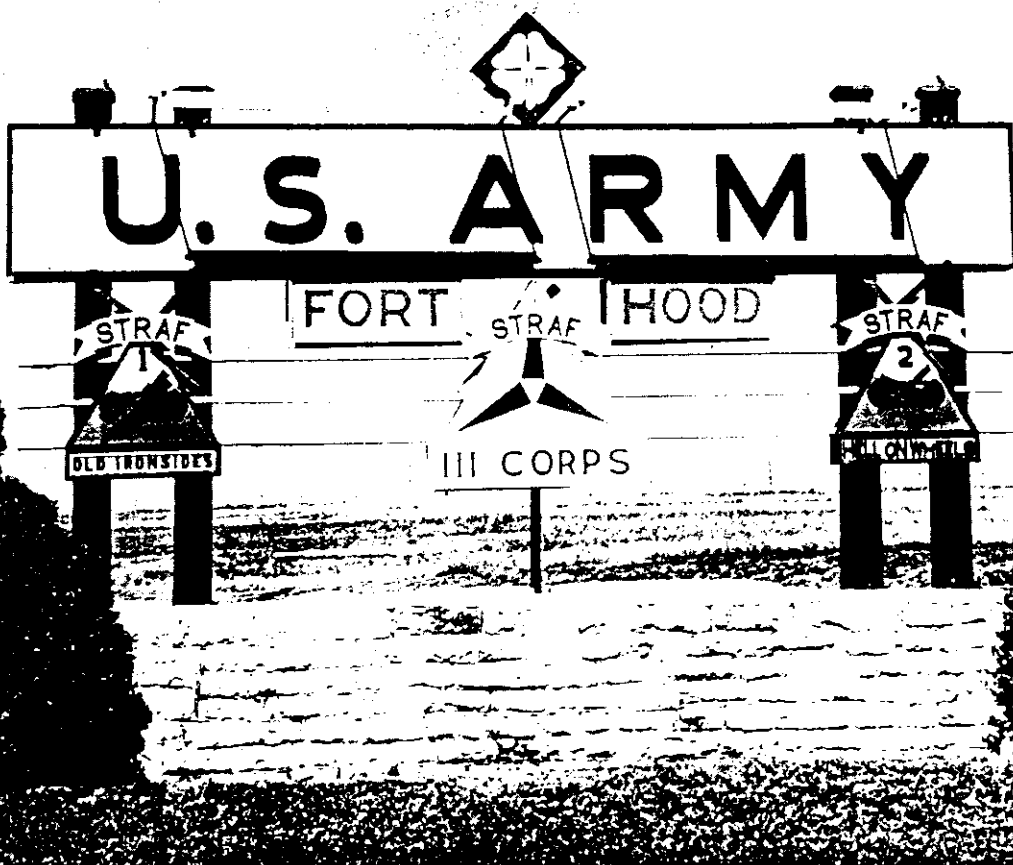
Thank you.

Respectfully,

**LUIS M. MORTON, JR.**  
President

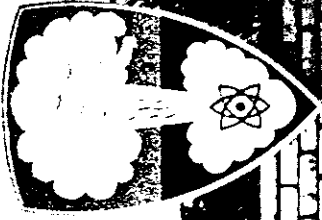


Engineering Arts and Technology Building



## ENTRANCE TO THE LARGEST ARMOR POST IN THE FREE WORLD

Central Texas College is located adjacent to and serves the educational needs of personnel on this vast military installation.



# KILLEEN BASE



Central Texas College is located adjacent to and serves the personnel of Killeen Base.



## BOARD OF TRUSTEES

WILLIAM S. BIGHAM  
Killeen  
President

BIRT F. WILKERSON  
Nolanville  
Vice-President

MRS. LINUS D. FREDERICK  
Cooperas Cove  
Secretary

W. A. ROACH, D.V.M.  
Killeen  
Treasurer

J. A. DAROSSETT  
Copperas Cove

GUINN C. FERGUS  
Killeen

MARVIN MICKAN  
Copperas Cove

## ADMINISTRATIVE OFFICERS

LUIS M. MORTON, JR. .... President  
B.S., The University of Houston  
LL.B., St. Mary's University  
M.L., The University of Houston  
Ph.D., The University of Texas  
Post Doctoral Studies: Michigan State University,  
University of Michigan, University of Colorado

KENNETH P. WALKER .... Dean  
B.A., The University of Texas  
M.A., East Texas State College  
Doctoral Study: The University of Texas

PHILLIP R. SWARTZ .... Director of Fiscal Affairs  
B.B.A., West Texas State University  
M.B.A., West Texas State University  
Post Graduate Studies, The University of Kentucky

## ADMINISTRATIVE STAFF

RICHARD D. WILSON  
Director of Student Affairs

ERNEST A. KASPRZYK  
Director of Engineering & Technology and the Evening College

SHERIDAN D. CAVITT, JR.  
Supervisor of Admissions and Counseling

JOHN W. MOFFITT  
Director of Student Financial Aids

DARRELL R. RAINES  
Bursar

EDWARD G. FARRAND, MAJ. GEN., USA (Ret)  
Director of Development

MRS. JOHN R. LANE  
Assistant to the President

1968

JANUARY							FEBRUARY							MARCH							APRIL								
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		
	1	2	3	4	5	6					1	2	3						1	2		1	2	3	4	5	6		
7	8	9	10	11	12	13	4	5	6	7	8	9	10	3	4	5	6	7	8	9	7	8	9	10	11	12	13		
14	15	16	17	18	19	20	11	12	13	14	15	16	17	10	11	12	13	14	15	16	14	15	16	17	18	19	20		
21	22	23	24	25	26	27	18	19	20	21	22	23	24	17	18	19	20	21	22	23	21	22	23	24	25	26	27		
28	29	30	31				25	26	27	28	29			24	25	26	27	28	29	30	28	29	30	31					
														31															
MAY							JUNE							JULY							AUGUST								
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		
				1	2	3	4						1		1	2	3	4	5	6						1	2	3	
5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10		
12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17		
19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24		
26	27	28	29	30	31		23	24	25	26	27	28	29	28	29	30	31				25	26	27	28	29	30	31		
							30																						
SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER								
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		
	1	2	3	4	5	6	7				1	2	3	4	5					1	2		1	2	3	4	5	6	7
8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9	8	9	10	11	12	13	14		
15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16	15	16	17	18	19	20	21		
22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23	22	23	24	25	26	27	28		
29	30						27	28	29	30	31			24	25	26	27	28	29	30	29	30	31						

## TABLE OF CONTENTS

### DATES TO REMEMBER

Calendar of Events .....	21
--------------------------	----

### COLLEGE PERSONNEL

Board of Trustees .....	17
Administrative Officers .....	17
Administrative Staff .....	18

### GENERAL INFORMATION

#### PROGRAMS OF STUDY

##### Division of Arts and Sciences

Agriculture .....	47
Business Administration .....	49
Communications (English, Forensics, and Journalism) .....	54
Education .....	58
Engineering .....	60
Fine Arts (Art, Music, Theatre Arts) .....	62
Foreign Language .....	70
Home Economics .....	72
Mathematics .....	74
Physical and Health Education .....	75
Natural Sciences (Biology, Chemistry) .....	78
Physical Sciences (Geology, Physics) .....	80
Social Sciences (Anthropology, Bible, Geography, Government, History, Philosophy, Psychology, Sociology) .....	82
Pre-Professional Programs .....	87

##### Division of Engineering and Technology

Air Conditioning Technology .....	89
Automotive Technology .....	90
Career Pilot Technology .....	92
Drafting and Design Technology .....	95
Electrical/Electronics Technology .....	96
Electronic Data Processing and Computer Technology .....	99
Executive Management .....	102
Farm and Ranch Management .....	103
Hotel-Restaurant Management .....	106
Law Enforcement Technology .....	107
Machine Tools Technology .....	109
Nursing .....	111
Office Occupations .....	113
Photography .....	114
Telecommunications .....	115

##### Adult Education Program

Special Interest Courses .....	118
--------------------------------	-----

## 1969

1969																												
JANUARY							FEBRUARY							MARCH							APRIL							
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	
				1	2	3	4						1							1			1	2	3	4	5	
5	6	7	8	9	10	11		2	3	4	5	6	7	8	2	3	4	5	6	7	8	6	7	8	9	10	11	12
12	13	14	15	16	17	18		9	10	11	12	13	14	15	9	10	11	12	13	14	15	13	14	15	16	17	18	19
19	20	21	22	23	24	25		16	17	18	19	20	21	22	16	17	18	19	20	21	22	20	21	22	23	24	25	26
26	27	28	29	30	31			23	24	25	26	27	28		23	24	25	26	27	28	29	27	28	29	30			
															30	31												
MAY							JUNE							JULY							AUGUST							
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	
					1	2	3		1	2	3	4	5	6	7		1	2	3	4	5					1	2	
4	5	6	7	8	9	10		8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9
11	12	13	14	15	16	17		15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16
18	19	20	21	22	23	24		22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23
25	26	27	28	29	30	31		29	30						27	28	29	30	31			24	25	26	27	28	29	30
																						31						
SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER							
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	
			1	2	3	4	5	6				1	2	3	4					1			1	2	3	4	5	6
7	8	9	10	11	12	13		5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13
14	15	16	17	18	19	20		12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20
21	22	23	24	25	26	27		19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27
28	29	30						26	27	28	29	30	31		23	24	25	26	27	28	29	28	29	30	31			
															30													

## 1970

JANUARY							FEBRUARY							MARCH							APRIL							
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	
				1	2	3	1	2	3	4	5	6	7	1	2	3	4	5	6	7				1	2	3	4	
4	5	6	7	8	9	10	8	9	10	11	12	13	14	8	9	10	11	12	13	14	5	6	7	8	9	10	11	
11	12	13	14	15	16	17	15	16	17	18	19	20	21	15	16	17	18	19	20	21	12	13	14	15	16	17	18	
18	19	20	21	22	23	24	22	23	24	25	26	27	28	22	23	24	25	26	27	28	19	20	21	22	23	24	25	
25	26	27	28	29	30	31								29	30	31					26	27	28	29	30			
MAY							JUNE							JULY							AUGUST							
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	
					1	2		1	2	3	4	5	6			1	2	3	4							1		
3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8	
10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15	
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22	
24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31		23	24	25	26	27	28	29	
31																					30	31						
SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER							
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	
				1	2	3					1	2	3	1	2	3	4	5	6	7				1	2	3	4	5
6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12	
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19	
20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26	
27	28	29	30				25	26	27	28	29	30	31	29	30						27	28	29	30	31			

## CALENDAR OF EVENTS 1968-1969

### FALL SEMESTER 1968

July 15 to September 13 .....	Pre-registration for Fall Semester
September 3-13 .....	Faculty In-Service Meetings
September 16-17 .....	Dormitory Students Report
September 18 .....	Student Orientation (all new, Day students attend)
September 19-20 .....	Registration
September 23 .....	Class Instruction Begins
November 28 .....	Thanksgiving Holidays Begin
December 2 .....	Instruction Resumes
December 21 .....	Christmas Holidays Begin
January 6, 1969 .....	Instruction Resumes
January 24 .....	Fall Semester Ends

### SPRING SEMESTER 1969

January 30-31 .....	Registration
February 3 .....	Instruction Begins
March 29 .....	Spring Vacation Begins
April 7 .....	Instruction Resumes
May 30 .....	Spring Semester Ends
May 31 .....	Graduation Exercises

### SUMMER SESSIONS 1969

#### First Six Weeks and Twelve Weeks Terms

June 2-3 .....	Registration
June 4 .....	Instruction Begins
July 4 .....	Legal Holiday
July 15 .....	First Six Weeks Term Ends

#### Second Six Weeks Term

July 17 .....	Registration
July 21 .....	Instruction Begins
August 28 .....	Summer Session Ends

## TENTATIVE CALENDAR

## 1969-1970

## FALL SEMESTER

1969

September 2-5	Faculty In-Service Meetings
September 8-9	Dormitory Students Report
September 10	Student Orientation (all new Day students attend)
September 11-12	Registration
September 15	Class Instruction Begins
November 27	Thanksgiving Holidays Begin
December 1	Instruction Resumes
December 20	Christmas Holidays Begin
January 5, 1970	Instruction Resumes
January 17	Fall Semester Ends

### SPRING SEMESTER

## 1970

January 22-23	Registration
January 26	Instruction Begins
March 28	Spring Vacation Begins
April 6	Instruction Resumes
May 22	Spring Semester Ends
May 23	Graduation Exercises

## SUMMER SESSIONS

## 1970

## First Six Weeks and Twelve Weeks Terms

June 1-2 ..... Registration  
June 3 ..... Instruction Begins  
July 4 ..... Legal Holiday  
July 10 ..... First Six Weeks Ends

## Second Six Weeks Term

**July 13** ..... **Registration**  
**July 14** ..... **Instruction Begins**  
**August 21** ..... **Twelve and Six Weeks Terms End**

## GENERAL INFORMATION

### FACTS ABOUT THE COLLEGE

#### LOCATION OF CAMPUS

Central Texas College is a public two-year institution. It is located on U. S. Highway 190 between Killeen, Texas, and Copperas Cove, Texas. The 100-acre campus is completely surrounded by Fort Hood and is adjacent to Killeen Base, a Defense Atomic Support Agency, and Robert Gray Army Airfield. Fort Hood is the largest armor installation in the Free World. The population in a ten-mile radius of Killeen is estimated to be 125,000. The campus is within minutes of streams and lakes in what is considered to be an outstanding recreational area.

#### HISTORICAL BACKGROUND

The Central Texas College district was created in July 1965, and is composed of the Killeen Independent School District, the Copperas Cove Independent School District, and the Nolanville Common School District. The bond issue to construct and equip the plant followed in October 1965. In January 1966, the Board of Trustees employed the President of the College and offices were opened in Killeen. The first several months were spent establishing the legal, financial, and academic framework for the College. Final plans and specifications for some of the buildings were completed in June and July of 1966; and the architect was given instructions to begin construction of a Library Building, a Science Building, an Academic Classroom Building, a Technology Building, a Physical Education Building, an Administration Building, a Student Center, and a Maintenance Technology Building. A Telecommunications Building was added in 1967, and two Dormitories were added in 1968. All plant facilities are air-conditioned.

Central Texas College opened its doors for the first time in September 1967 and over 2000 students enrolled to become the historic first student body. The College was tabbed by national news media as the "Cinderella Story".

On December 12, 1967, the college received its greatest honor when the 36th president of the United States, Lyndon Baines Johnson, came and dedicated the College "... to the service of all the people ...". On this same date the College was honored by the presence of Mrs. Oveta Culp Hobby for whom the College Board of Trustees dedicated the college library. President Johnson joined in the dedication and ribbon cutting ceremony for the Oveta Culp Hobby Memorial Library.

Throughout the remainder of this first academic year, Central Texas College was honored by visits from many other dignitaries including high ranking public officials and military officers.

## EDUCATIONAL PHILOSOPHY

Central Texas College is dedicated to the philosophy that in a democracy, the well-being of the individual as well as the whole of society depends upon the sound moral and educational development of its people. Since education is an individual, evolutionary, and never ending process, the College curricula will necessarily be both flexible and extensive.

Seriousness of purpose, dedication to discipline, and the desire to learn enduring values will all be recognized as outstanding assets and earn the student the right to be helped without limit. This would be the desire and privilege of every employee of Central Texas College and would insure the pursuit of high standards of achievement for student and faculty alike.

In order to insure the fullest service possible to the civilians of the surrounding area and to the personnel of the large military installations adjacent to the campus, Central Texas College will offer extensive and flexible curricula in the academic, technological, vocational, and adult education fields. The educational program will be geared to meet the needs of full-time as well as part-time civilian and military students. The College doors will remain open from early morning until late at night.

Central Texas College complies with Title VI of the Civil Rights Act of 1964. With respect to the admission and education of students, with respect to the employment and promotion of teaching and non-teaching personnel, with respect to student and faculty activities conducted on premises owned or occupied by the College, and with respect to student housing situated on premises owned or occupied by the College, Central Texas College shall not discriminate either in favor of or against any person on account of his or her race, creed or color.

## EDUCATIONAL OBJECTIVES

1. **University Transfer Education**—The College provides the first two years of college work for those students planning to achieve a Baccalaureate or higher degree.
2. **General Education**—The College provides general education courses which will develop competence, skills, and attitudes essential to effective performance as an individual, as a citizen, and as a productive member of society. Within this academic framework are studies in communication and languages, social sciences and humanities, mathematics, physical and social development, as well as a program of co-curricular activities.
3. **Occupational Arts**—The College provides courses which qualify students in vocational and/or technical fields, and equips them for occupational competency.
4. **Area Service**—The College provides life-long education for adults, opportunities for cultural enhancement, special interest



courses, lectures, and meetings designed to satisfy the special needs of business, of the military, and of area groups.

5. **Personal Guidance**—The College provides guidance services which will enable the student to select with proper perspective the educational program that is compatible with his abilities, aptitudes, and ambitions.

## **EXTENSION COURSES**

Those persons needing junior, senior, or graduate courses for teacher certification as well as other purposes, may find these opportunities available at Central Texas College if there is sufficient student need. In collaboration with the University of Texas Extension Teaching and Field Service Bureau, and other institutions, Central Texas College will arrange for the offering of classes on its campus in order to serve the educational needs of the students in this area.

## **TRANSFER OF CREDITS**

The entire academic program of Central Texas College has been developed with great care to the end that all courses, if taken in proper order and grade of "C" or better is made, will transfer to senior colleges. Special care has been taken by securing advice from the Coordinating Board, Texas College and University System, and meticulous attention has been given to academic transfer details. Central Texas College has gone so far as to secure written transfer commitments from the leading institutions of higher learning of the State of Texas to include the University of Texas, Texas A&M University, The University of Houston, Baylor University, Texas Technological College, Texas Christian University, Southern Methodist University, East Texas State University, and others. In the case of Rice University, permission has been received for their admissions counselor to interview our students individually to correlate transfer of courses. Many letters from other state colleges are also on file.

In summary, Central Texas College credits will transfer in keeping with the policy for new institutions adopted by the American Association of Collegiate Registrars and Admissions Officers.

Very special precautions will be taken to see that each student is enrolled for the proper course. Academic counselors will keep a file on each student to the end that transfer difficulties be eliminated. Although the ultimate responsibility rests with each student to decide upon the institution to which he wishes to transfer, and to see that he takes the proper course(s), Central Texas College considers it also has an obligation to assist each student in the area of academic guidance.

## **ADMISSION REQUIREMENTS**

Students who hold diplomas from accredited secondary schools may enter Central Texas College upon the presentation of certified credentials. Students transferring from another college will be accepted if they are eligible to return to the transferring institution. Veterans and military personnel, as well as students of mature years who have not had the opportunity to complete a high school course, but who, by reason of special attainments are prepared to undertake post high school work, may be admitted to certain areas of study, if in the judgment of College officials, such training will be of value to the student.

### **G.E.D. TEST**

The General Educational Development Test will be administered in the Office of Student Affairs for persons over 19 years of age who are not high school graduates and who desire this certificate as an equivalent to the high school diploma.

### **WHAT TO DO BEFORE REGISTRATION**

To insure that all requirements have been met for admission and permission to register you should:

1. Ask the Registrar of the last school you attended to send a transcript of your school record to the Supervisor of Records at Central Texas College. Do this at least two weeks before you come to register.
2. Arrange to take either the ACT or the SAT (CEEB) college guidance examination and request that your scores be mailed to Central Texas College. Either the ACT or the SAT examination will be accepted, but the ACT is preferred.
3. Obtain an application for admission, complete it, and return it to the Supervisor of Records.
4. Make an appointment with the Office of Student Affairs for an interview to obtain a copy of registration materials and secure assistance in planning your course program.
5. Pre-register at the College on the days established in the schedule bulletins.

Completion of the above items will facilitate your enrollment on registration day. Students who fail to complete the above in advance may be given permission to register by the Supervisor of Admissions, and will be on probationary status until all requirements have been met.

## ADVANCED STANDING CREDITS

Students who believe they are eligible for advanced placement or advanced standing may take advanced standing examinations at the College testing center in the Office of the Director of Student Affairs.

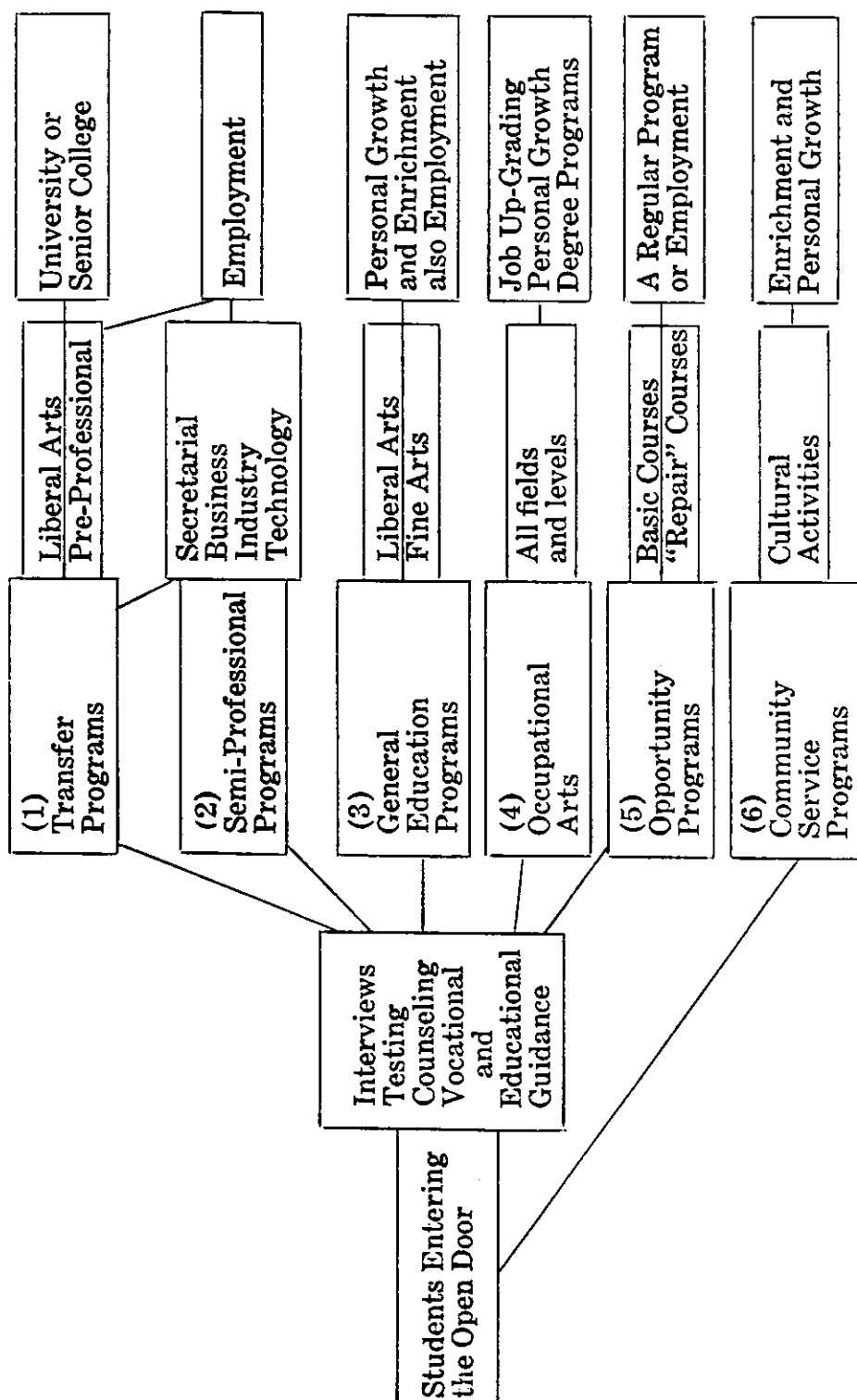
To obtain credit by an examination, the student must pass the examination with a grade of either "A" or "B." He will then receive semester-hours credit for the appropriate course(s), and his examination grade will become his course grade. These credits and grades will count toward fulfillment of Central Texas College degree requirements.

## WHY YOU SHOULD ATTEND CENTRAL TEXAS COLLEGE

1. Central Texas College makes possible a less abrupt and less difficult transition from high school to university. With direct personal contact between teacher and student, the adjustment to college life and study is made easier and more pleasant.
2. Because most students may live at home and travel only a few miles to college, the cost of attending Central Texas College is much less than the cost would be for living away from home while attending college, even if a student should receive a \$1,000.00 scholarship from a larger college.
3. Dedicated teachers assisted by teacher's aides will enable students to receive maximum individual attention. Thus, the teacher may detect and help the student correct difficulties that might lead to failure and withdrawal from college.
4. Students who have subject or grade deficiencies for transfer to senior institutions are given an opportunity to correct such deficiencies, thus enabling them to go on to the completion of a university education which would otherwise be denied.
5. Adults who have not graduated from high school may be admitted on individual approval in order to gain enrichment from college study.
6. A major advantage at Central Texas College is that students will gain valuable experience through participation in student activities which will give them self-reliance, leadership abilities, and ability to get along well with others. These qualities are most important for good citizenship and a successful life after completing college.
7. Regardless of ultimate goals, students at Central Texas College should be better persons for having mingled in classes and social activities with people who have lived and traveled internationally.

8. The students, faculty and administration of Central Texas College are dedicated to quality education, sound aspirations, proper social development, and the general betterment of individuals and the world in which we live.
9. Central Texas College is a completely new and modern college with a distinctive character and personality. The campus is designed for maximum function and beauty. Students will find the scenery to be relaxing as well as highly conducive to study and learning.

# **FLOW CHART SHOWING GOALS WHICH MAY BE CHOSEN BY STUDENTS AT CENTRAL TEXAS COLLEGE**



### RECOMMENDED HIGH SCHOOL PROGRAM\*

Subjects	Freshman	Soph.	Junior	Senior
ENGLISH	English	English	English	English
SOCIAL STUDIES		Elective	U.S. History	Civics
MATHEMATICS	Algebra	Geometry	Advanced Algebra for science majors; recommended for others	Advanced Mathematics for science majors
FOREIGN LANGUAGE	Foreign Language	Continue the same language	(a) Continue the same language or (b) Begin another language	(a) Recommend cont. same language or (b) Continue the second language
PHYSICAL EDUCATION	P.E.	P.E.	P.E.	P.E.
ELECTIVES	Recommended for all precollege students: typing, art, music, and additional courses in science and social science.			

\*This is a recommended program (not specifically required) as variations will exist in the requirements for graduation from different high schools.

Students expecting to specialize in foreign language, music, drama, or science in college should begin those subjects in high school. Students looking forward to a college major in the sciences, mathematics, medicine, business administration, law, music, or pharmacy should include in their high school curriculum at least two years of algebra, one year of plane geometry and in most cases, one or more years of biology, chemistry and physics. Students who plan to major in engineering should take solid geometry or trigonometry and analytical geometry in addition to the above listed math courses.

### GRADUATION REQUIREMENTS DEGREES CONFERRED

Central Texas College will confer the degree of Associate in

Arts, the degree of Associate in Science, and the degree of Associate in Applied Science.\*

### **Associate in Arts**

Complete a minimum total of sixty-one semester hours which must include:

1. Twelve semester hours of English.
2. Six semester hours of American History.
3. Six semester hours of American Government.
4. Two years of foreign language or one year of foreign language and one year of science.
5. Four semesters of Physical Education.
6. Psychology 111.
7. A minimum of eighteen semester hours of sophomore courses, twelve semester hours of which must be completed at Central Texas College.
8. Have a minimum grade-point average of 2.0 ("C" average).
9. Meet all other college requirements.

### **Associate in Science**

Complete a minimum total of sixty-six semester hours which must include:

1. Twelve semester hours of English.
2. Six semester hours of American History.
3. Six semester hours of American Government.
4. Two years of science.
5. One year of mathematics.
6. Four semester hours of Physical Education.
7. Psychology 111.
8. A minimum of fifteen semester hours of sophomore courses, twelve semester hours of which must be completed at Central Texas College.
9. Have a minimum grade-point average of 2.0 ("C" average).
10. Meet all other college requirements.

### **Associate in Applied Science**

The Associate in Applied Science Degree will be awarded to students who meet curricula requirements for two-year technology programs.

### **Certificate of Completion**

A Certificate of Completion will be awarded to students who

---

\*B.B.A. majors may substitute one year of accounting for the one year of science or language to meet associate degree requirements. Senior college degree requirements vary considerably. Students should check the specific catalogue for exact requirements.

fulfill the curricula requirements of the vocational programs, and to students who complete a minimum of sixty-one hours of college credits, twelve of which must be completed at Central Texas College.

### **LIBRARY**

The Oveta Culp Hobby Memorial Library is one of the outstanding junior college libraries in the nation. Over 20,000 books are housed in the college library, and an additional 60,000 volumes are available from the Fort Hood and Killeen Base libraries (both adjacent to the campus). The building has been scientifically planned and the volumes carefully selected. Audio-visual resources and other advanced facilities to assist the student in reading and research are located in the library. The central location of the library and the great emphasis upon its contents clearly establishes the strong desire of Central Texas College to have a superior academic program.

### **HEALTH CERTIFICATE**

Recognizing the fact that good health and health practices contribute greatly to academic success, every student entering Central Texas College must provide a statement of his or her health status on a form supplied by the College. Personal hygiene requirements include proper grooming and the wearing of clean clothes including socks and shoes.

### **COUNSELING (Career Guidance)**

Many students find it useful to discuss academic, vocational and personal problems with a College counselor. Exploration of aptitudes and interests are encouraged as a means to intelligent planning for a future career. College personnel are interested in the well-being of each student and always stand ready to assist with problems when possible.

### **ENTRANCE EXAMINATIONS**

Central Texas College will accept either the American College Testing Program (ACT) or College Entrance Exam Board (SAT). One of the above tests will be required of all beginning freshmen. ACT is preferred.



# TUITION AND FEE SCHEDULE

33

## TUITION

Semester Credit Hours	Resident of the District	Non- Resident of the District	Non- Resident of Texas
1	\$20.00	\$24.00	\$ 75.00
2	21.00	26.00	90.00
3	24.00	34.00	100.00
4	30.00	40.00	115.00
5	36.00	46.00	140.00
6	44.00	54.00	150.00
7	52.00	62.00	175.00
8	60.00	70.00	200.00
9	66.00	76.00	225.00
10	72.00	82.00	235.00
11	74.00	84.00	245.00
12	75.00	85.00	250.00

## INDIVIDUAL INSTRUCTION

### Music

1 Semester Credit Hour	\$25.00
2 Semester Credit Hours	45.00
3 Semester Credit Hours	60.00

### Career Pilot (as required by curriculum)

Welding	25.00
---------	-------

LABORATORY FEE (in all courses requiring use of laboratory)	5.00
--	------

### Exceptions:

Photography	7.50
Microbiology	7.50

## STUDENT SERVICES FEE

Students taking more than 9 hours	5.00
Students taking less than 9 hours	1.00
Annual—Students taking more than 9 hours	6.00
Diploma	10.00

## FLIGHT FEES

C.P. 111	96.00 110.00
C.P. 130	282.00 300.00
C.P. 134	405.00 425.00
C.P. 234	405.00 425.00
C.P. 235	363.00 400.00
C.P. 238	193.00 220.00
C.P. 236	400.00

## OTHER FEES

Property Deposit (Refundable when student withdraws from Central Texas College. This deposit is required of every student enrolled for more than nine semester hours.)	10.00
Dormitory Property Deposit (those students living in dormitories)	25.00

## REFUND OF TUITION

Refunds of tuition and fees are made subject to the following regulations. All persons who enroll are expected to be aware of these regulations.

1. A refund of 50% will be made until the end of the first week of classes, i.e., until the College offices close on the fifth class day.
2. A refund of 20% during the second week of classes.
3. No refund will be made after the end of the tenth class day.
4. A request for refund must be completed in the Office of the Director of Student Affairs. A check for the authorized amount will be mailed to the address shown on the request form.
5. Refunds for summer sessions and special courses will be calculated on an apportioned basis equivalent to the first two weeks of classes as stated above.

## FINANCIAL AID PROGRAMS

The College maintains a Student Placement Office to help students secure part-time employment. Loan funds as well as scholarships are available. Central Texas College participates in the National Defense Student Loan Program, and the Federal Work-Study Program whereby a student may work part-time on campus to help finance his college studies. In addition, eligible students may participate in the Texas Opportunity Plan Loan Program, the Federal Guaranteed Loan Program, and Educational Opportunity Grants.

## G. I. BILL

Central Texas College is an approved college for those who wish to attend and receive benefits under the Veterans Readjustment Benefits Act of 1966.

## MILITARY EDUCATION BENEFITS

Many military personnel not eligible to participate under the Veterans Readjustment Benefits Act of 1966 may wish to attend Central Texas College under the Tuition Assistance Program which pays for 75% of tuition. (Department of Defense Appropriations Act of 1966, P.L. 89-213.)

## **WAR ORPHANS AND KOREAN VETERANS**

Central Texas College is an approved college for those who qualify under these classifications.

## **VOCATIONAL REHABILITATION**

The Texas Education Agency, through the Vocational Rehabilitation Division, offers assistance for tuition to students who have certain physical disabilities, provided the vocational objective selected by the disabled person has been approved by a representative of the Division. Application for this assistance should be made to the nearest Rehabilitation Office or to the Director of Vocational Rehabilitation, Texas Education Agency, Austin, Texas.

## **EVENING COLLEGE**

Regular academic, as well as technical, vocational, and adult education courses, will be offered Monday through Thursday evenings from 6:00 PM to 10:30 PM.

## **SUMMER SESSION**

Two six-weeks terms are offered during the summer. Classes meet daily, Monday through Thursday. The maximum student load is seven semester hours for each six-weeks term.

One twelve-weeks term will also be held during the summer. Maximum student load for this term is fourteen semester hours.

## **MILITARY CREDIT**

Central Texas College will recognize and grant credit to military personnel for educational training completed in the Armed Forces. Credit is granted in accordance with the recommendations of the American Council on Education. Work completed through the United States Armed Forces Institute is also accepted. Requests for military service credit will be evaluated after a student has completed twelve semester hours of successful work at Central Texas College. However, not more than fifteen semester hours total credit will be allowed for any combination of credits from the educational experiences listed above.

## **VISITORS IN A CLASS**

Permission to visit a class may be granted by the Dean of the College or Director of the Evening College. Such permission carries with it permission to listen and observe, but not to enter into class discussions or laboratory work.

## CLASS MEMBERSHIP

The only way to become an official member of a class at Central Texas College is by following the established procedure for registering and paying of tuition and fees. No person is an official student until all charges have been paid in full. Installment payment of tuition and fees is not permitted.

## RESIDENCY STATUS

Residency status of students is to be determined as follows:

1. The term "residence" as used in State Law means "domicile"; the term "resided in" means "domiciled in"; provided, the Governing Board of each institution required under this law to charge a non-resident registration fee is hereby authorized and directed to follow such rules, regulations, and interpretations as are issued by the Commission on Higher Education for the effective and uniform administration of the non-resident tuition provisions of this law. For the purposes of this law, the status of a student as a "resident" or "non-resident" student, is to be determined as follows:

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

b. Individuals twenty-one (21) years of age or over who have come from without the State and who are gainfully employed within the State for a period of twelve (12) months prior to registering in an educational institution shall be classified as "resident students" as long as they continue to maintain such legal residence in the State.

c. Individuals twenty-one (21) years of age or over who have come from without the State and who register in an educational institution prior to having resided in the State for a period of twelve (12) months shall be classified as "non-resident students," and such "non-resident student" classification shall be presumed to be correct as long as the residence of such individual in the State is primarily for the purpose of attendance at educational institutions; provided, however, that a "non-resident" student may be reclassified as a "resident student" upon representation of conclusive evidence that he has in fact been a legal resident of Texas for at least twelve (12) months immediately preceding such reclassification. Any such individual so reclassified as a "resident student" shall be entitled to pay the tuition fee for a resident of Texas at any subsequent registration fee for as long as he continues to maintain his legal residence in Texas.

d. Individuals of twenty-one (21) years of age or less whose families have not resided in Texas for the twelve (12) months immediately preceding that date of registration, shall be classified as "non-resident students" regardless of whether such individuals have become the legal wards of residents of Texas or have been adopted by residents of Texas while such individuals are attending educational institutions in Texas or within a year prior to such an attendance or under circumstances indicating that such guardianship or adoption was for the purpose of obtaining status as a "resident student."

2. All aliens shall be classified as "non-resident students"; provided, however, that an alien who is living in this country under a visa permitting permanent residence or who has filed a Declaration of Intention to become a citizen with the proper federal immigration authorities shall have the same privilege of qualifying for resident status for fee purposes under this Law as has a citizen of the United States.

3. The Governing Boards of the several state-supported institutions of higher learning are hereby authorized to assess and collect from each non-resident student failing to comply with the rules and regulations of the Governing Boards concerning non-resident fees, a penalty not to exceed Ten Dollars (\$10) a semester.

4. Officers, enlisted men and women, selectees or draftees of the Army, Army Reserve, National Guard, Air Force, Air Force Reserve, Navy, Navy Reserve, or Marine Corps of the United States, who are stationed in Texas by assignment to duty within the borders of this State, shall be permitted to register themselves, their husband or wife as the case may be, and their children, in State institutions of higher learning by paying the regular tuition fees and other fees or charges provided for regular residents of the State of Texas, without regard to the length of time such officers, enlisted men or women, selectees or draftees have been stationed on active duty within the State.

### **STUDENT ACTIVITIES**

Organizations on the Central Texas College campus enhance the purpose and philosophy of the college. Student organizations help to develop good qualities of leadership, help create good fellowship and social goodwill, and further self-realization and all-round growth.

Sixteen clubs were organized during the past year. In addition to the Student Assembly, clubs include religious, political, social and recreational organizations. Additional organizations may be added from time to time and require the approval of the Dean of the College.

### **ATHLETIC PROGRAM**

Appropriate athletic programs will be organized. Tennis will be the first sport, and will be started during the 1968-1969

College year. Programs of inter-collegiate competition will require approval of the College President and the Board of Trustees.

### STUDENT CENTER

Central Texas College has a beautiful student center which provides food service, recreation and lounging areas, social activities, meeting rooms, et cetera.

### STUDENT CONDUCT

Through enrollment at Central Texas College, the student signifies that he recognizes and accepts the authority of the College in regulating his conduct, and he agrees to abide by all regulations and rules established by the College.

The student does not give up any of his rights by enrolling in the College. He will be treated fairly and with due process in all matters involving disciplinary action.

Violation of federal laws, state laws, or city ordinances renders the student subject to disciplinary action by the College. The drinking of alcoholic beverages, participation in gambling, immoral conduct, and dishonesty render the student subject to disciplinary action.

All students are required to show proper respect for College personnel and classmates, and to observe usual standards of conduct acceptable in polite society.

Membership in secret organizations of any kind is prohibited. Hazing in any form, physical or mental, is prohibited. Any students who publish, aid in publishing, circulate or aid in circulating anonymous materials are subject to disciplinary action.

### CAMPUS DRESS

Students will be required to dress appropriately everywhere on the campus at all times. Students in special areas (for example, physical education and laboratories) may require particular clothing for suitability and safety; but, in general, appropriate dress for women is considered to be suits, dresses or skirts of appropriate length, and sweaters or blouses; for men, suits, full-length trousers, shirts, and sweaters or jackets. Proper shoes and socks or stockings are included in appropriate dress. Personal hygiene and grooming must conform to standards of cleanliness and neatness acceptable in polite society. Beards and uncommonly long hair are not permitted.

A positive requirement for appropriate dress and grooming is based on the philosophy that these factors have a direct bearing on the attitudes and behavior of students; and, thereby, on their educational performance.

### STUDENT DISCIPLINE

The teaching obligations and other educational duties and

responsibilities of the faculty and administration of Central Texas College require that they shall have the authority to establish and maintain standards of ethical, moral and personal conduct for all students enrolled in the College. All students are expected to conduct themselves in accordance with the generally accepted standards of good behavior and good taste. It should be clearly understood by all students who are permitted to enroll that the College Administration has the authority to take proper disciplinary action against students who conduct themselves contrary to the standards above mentioned or in a manner contrary to the rules and regulations of the College. The disciplinary action may take the form of being warned, censored, placed on disciplinary probation, required to withdraw from a course or courses, suspended, or expelled from the College.

Disciplinary action is not primarily a punishment for violation of regulations, but is an action taken on the basis of the judgment of College officials as to whether a particular student, at a particular time, has proper attitudes and conduct which enable him to profit from the educational process.

The philosophy of discipline at Central Texas College is therefore positive rather than negative. The rationale is not that of punitive action for violation of law, but rather is that of taking proper disciplinary measures on the basis of a determination of a particular student's amenability to the educational process at a given time.

### SCHOLASTIC DISHONESTY

All students of Central Texas College are required and expected to maintain the highest standards of scholastic honesty in the preparation of all work and in examinations. Each student should avoid:

1. Plagiarism—the taking of passages from writings of others without giving proper credit to the source.
2. Collusion—working together with another person in the preparation of work unless such joint preparation is specifically approved in advance by the instructor.
3. Cheating—giving or receiving information on an examination.

Students found guilty of scholastic dishonesty are subject to appropriate disciplinary action as defined previously in this catalogue, and in addition, are subject to having credit for courses cancelled. Such cancellation may be removed only by repeating the course(s).

### ABSENCES AND TARDINESS

Students are required to attend classes regularly. Excusable

absences are those resulting from personal illness, emergencies arising within the family, official school-sponsored trips (approved by the Dean), and military duties or orders requiring brief absences.

More than three unexcused absences from a class in one semester may result in the student being dropped from the class with a grade of "F."

Students are expected to be in classes on time. Three unexcused tardinesses will count as one class absence.

The following specific rules apply to absences:

1. Each instructor shall keep a record of class attendance, and shall determine when a student's absence is excused.
2. Students who are dropped from class rolls after three unexcused absences may not be readmitted to class except by special approval from the Director of Student Affairs.
3. The Director of Student Affairs will not grant excuses for absences. He may readmit the student to class, but the absence(s) will remain unexcused.

### **ATTENDANCE RECORDS**

It is the duty of the instructor to keep a record of absences, to report promptly to the Director of Student Affairs or Director of the Evening College, whichever the case may be, when a student has incurred excessive absences (three successive or six total), and to record absences on grade sheets or grade cards submitted to the Records Office at the end of each semester.

### **ATTENDANCE RULES FOR STUDENTS ON PROBATION**

A student on scholastic probation must attend classes regularly. He will be required to sign a probation agreement in the Office of Student Affairs and to adhere to the rules governing same.

### **EXAMINATIONS**

Semester examinations are given at the end of each semester or summer term in all subjects. The last five class days of each semester immediately preceding the date examinations begin will be known as "dead week." During this period, no college-sponsored social activities are permitted since students should be preparing for examinations.

All students are required to take examinations when scheduled unless excused by the Dean because of personal illness or some emergency approved by the Dean. Otherwise, the student receives a grade of "F" for the course. The Dean of the College should be notified immediately when a student finds it impossible to take his examination as scheduled, so that arrangements for a postponed examination may be requested. If post-



poned examinations are approved, the student must take them as soon as he has recovered from his illness or his emergency has ended. In any case, the examination must be completed prior to the close of the semester immediately following the one in which the examination should have been taken.

At the close of each semester or summer term, grade reports are mailed to the parents of all students. Self-supporting students under twenty-one years of age and not residing legally with their parents, and students twenty-one years of age or older may request that their grades be mailed to themselves. Requests from students under twenty-one years of age require approval of the Director of Student Affairs.

### **WITHDRAWAL FROM COLLEGE**

In order to be officially withdrawn from the College a student must obtain and complete a withdrawal form and have it signed as indicated thereon. The student's transcript will show W, WP, or WF depending upon whether the student is passing or failing in his courses at the time of withdrawal.

An administrative withdrawal results when a student is absent from classes an excessive number of times without good reason and without notifying the Director of Student Affairs of the cause of absence. In such cases, the student is dropped from all classes, constituting withdrawal from the College, and a grade of "F" is recorded for all courses in which he was enrolled.

### **SUMMONS TO ADMINISTRATIVE OFFICES**

Any student receiving a summons from an administrative office must respond promptly as requested. A summons may take the form of a call from class, a notice on the official bulletin boards, or a notice by mail. Failure to respond to a summons renders the student subject to disciplinary action.

### **PARKING REGULATIONS**

All campus parking and traffic regulations are printed in the Student Information Book. Each student is responsible for understanding and complying with these regulations.

### **CHANGE OF ADDRESS**

If a change occurs in a student's permanent mailing address or in his residence address while attending College, he is required to give prompt notification to the Records Office.

The student is responsible for all communications mailed to him at the latest address he has given to the College. Having moved from a previous address does not relieve the student of responsibility for requests made to him through correspondence.

## DORMITORIES

Central Texas College operates two beautiful, air-conditioned dormitories, one for ladies and one for gentlemen. Requests are honored on a first come, first served basis. A reservation deposit of \$25.00 is required for each application for a room. A complete food service is available in the luxurious, new Student Services Occupations Center. Additional information is available from the Director of Student Affairs.

## HOUSING POLICY

The dormitory housing program at Central Texas College is a part of the total educational plan of the College. All students who come from outside the College district and who desire to have housing within the College district while attending the College will be required to reside in the College dormitories.

Exception to this requirement will be made for students who come within any one of the following categories:

1. Those who live with parents or with relatives by sanguinity.
2. Married students who live with their spouses.
3. Students whose health conditions demand special attention which would not be available in the dormitories. A letter from a physician is required in such cases.

If college housing is not available, sophomore students may be permitted to live in off-campus housing until such time as they can be admitted to the dormitories. A student who gives false information concerning his place of residency will be subject to appropriate disciplinary action.

The President of the College is authorized to adopt such operational rules and procedures as are necessary for implementation of this housing policy.

## COURSE PLANNING

Proper planning of courses is a very important matter for each student in order to assure that his individual objectives may be achieved. Each student at Central Texas College will have appropriate guidance in his educational planning, and every effort will be made to help the student achieve his goal. Final responsibility for a proper and successful educational venture rests with the student.

## ACADEMIC LOAD

**Standard Load:** The actual number of semester hours taken by a full-time student will vary with the number of one (1) hour courses and laboratory courses taken. While the standard load is considered to be fifteen (15) semester hours, the actual hours for five (5) solid courses plus physical education might be seventeen (17) or eighteen (18) semester hours. The normal

load for completing degree requirements in two school years is five (5) solid courses per semester, plus the required and/or elective one-hour courses which are taken in addition.

**Maximum Load:** Students are not permitted to take more than five (5) courses of three (3) or more semester hours value each during a semester. Additional one-hour courses may be taken in certain approved subject areas, but the total hours per semester may not exceed nineteen (19).

If a student is in his last semester prior to graduation and must have extra hours to fulfill graduation requirements, he may take the extra hours if approval is received from the Dean of the College.

**Minimum Load:** Since part-time as well as full-time students are welcome at Central State College, no minimum number of hours is required. Students who do not work and who are seeking a college degree are encouraged to take the maximum number of hours per semester. Students who plan to work part-time and students who may have difficulty with college level courses are encouraged to consult the academic counselor for advice on the number of hours that should be taken.

### ADDING AND/OR DROPPING COURSES

After official registration has been completed, a day student may add or drop courses only after receiving approval of the Director of Student Affairs. The Director of the Evening College will approve course changes for evening College students. A deadline date will be announced each semester, and no classes may be added after that date. Any classes dropped after the deadline will appear on the student's transcript with the appropriate designation of "W," "WP," or "WF."

A course may be added or dropped officially by completing appropriate forms and securing approval. A course is not dropped merely by not attending class. Students who fail to complete proper forms for dropping a class, and who absent themselves from class, may be dropped from the rolls upon recommendation of the instructor and approval of the appropriate administrator.

### SCHOLASTIC STANDARDS

Each student is expected to know his academic status at all times. To be in good standing, a student is required to maintain at least an overall average of "C." Those who fall below the "C" average will be placed on academic probation and will be required to have monthly conferences with the academic counselor. The purpose of such conferences will be to determine the cause of unsatisfactory work, to advise the student on ways to improve grades, to offer any assistance which college personnel might render, or to warn the student of pending disciplinary action, as the circumstances might require.

## SCHOLASTIC PROBATION

Whenever a student performs below the minimum required for good standing, he will be placed on scholastic probation for the following semester. If his performance improves to the required standards, he will be removed from probationary status.

If a student fails to meet the scholastic standards during the probationary period, he will be suspended from the College for a period of one semester. Upon readmission, the student will again be placed on scholastic probation for the semester. Failure to meet the required standards after being readmitted will result in the student being expelled from the College for two regular semesters. Upon readmission, the student will again be placed on scholastic probation for the semester. Failure to meet the required standards after being readmitted will result in the student's being expelled from the College for four regular semesters.

## CLASSIFICATION OF STUDENTS

**Freshman**—A student with thirty semester hours or less recorded on his permanent record will be classified as a freshman.

**Sophomore**—A student with thirty-one semester hours or more recorded on his permanent record will be classified as a sophomore.

**Maximum Hours for Transfer**—As a general rule, senior colleges will accept a maximum of sixty-six (66) semester hours of transfer credit from junior colleges. A student should not take more than this amount unless he secures written permission from his senior college choice.

## TRANSFER OF COURSES TO OTHER COLLEGES

If a student chooses his courses in conformity with the degree requirements of his senior college choice, and if he earns a grade of "C" or better, he will have no difficulty in transferring his work hour for hour with the same grade earned.

Since the types of courses required for the same major may vary with different colleges, it is important that each student have a degree planning conference with the academic counselor prior to registering for classes.

## TRANSCRIPTS

A Permanent Record showing the academic record of each student will be maintained by the College. A transcript will be supplied to the Registrar at the college or university which the student expects to attend after transferring from Central Texas College. This first transcript is provided at no cost. An appropriate fee will be charged for all subsequent transcripts requested. No transcripts will be released for students who have delinquent records of any kind at Central Texas College.

## CLASS HOURS

College classes are in progress five days per week. Classes meeting on Monday, Wednesday, and Friday are one hour in length. Classes meeting Tuesday and Thursday meet for one and one-half hours. Courses with laboratories require additional time.

## TEXTBOOKS

Students may purchase their textbooks and supplies from the College bookstore. Books may be resold to the bookstore at the end of a semester at a discounted price provided they are in good condition and have not been discontinued.

## GRADES AND POINT AVERAGES

Grading at Central Texas College is as follows:

Numerical Value	Grade
94-100	A=Superior (4 points per semester hour)
85- 93	B=Above Average (3 points per semester hour)
70- 84	C=Average (2 points per semester hour)
60- 69	*D=Below Average (1 point per semester hour)
0- 59	F=Failure (0 points per semester hour)
	†I=Incomplete
	WP=Withdrawn Passing
	WF=Withdrawn Failing
	NC=Non-Credit

## HONOR ROLL

Each semester, those students whose scholastic achievement is notable are given public recognition by publication of the "Dean's Honor Roll." The Honor Roll includes the names of all students who have earned a grade-point average of 3.5 in twelve or more semester hours for the preceding semester and who have no grades lower than "B." Students who carry a minimum of fifteen semester hours, and who meet this scholastic requirement are also eligible for membership in Phi Theta Kappa, the National Junior College Scholarship Society.

---

\*Students who receive a "D" grade are advised not to enroll in the next course for which this course was a prerequisite.

†An Incomplete grade may be given only in those cases where, because of personal illness, death in the immediate family, school sponsored trip, or military orders, the student is unable to complete the final examination for a course. Prior approval from the instructor is required before the grade of "I" is recorded. A student who merely fails to show up for the final examination will receive a zero for the final and an "F" for the course.

## ENRICHED STUDIES PROGRAM

Central Texas College recognizes that a certain percentage of the student body is capable of mastering and profiting from enriched educational experiences. Therefore, special opportunities are provided in various subject fields for those students who are identified as the intellectually gifted, the creative and talented, and the more able students. Selective enrollment in the areas of English Composition and Literature, as well as American History, Mathematics and Government is available.

### COURSE NUMBERS

Course numbers contain three digits. If the first digit is a "1" it indicates a freshman level course. If the first digit is a "2" it indicates a sophomore level course. The second digit indicates the semester hour value of the course. The third digit indicates the order in which the course is to be taken. (Example: English 131 is a freshman course with three semester hours credit and should be passed with a satisfactory grade before taking English 132.)

The numbers in parentheses found to the right of a course title indicate the number of lecture and laboratory hours per week. For example, Biology 141 would show (3-3) indicating three lecture meetings and three hours of laboratory per week.

### SUGGESTED CURRICULA

The curricula presented alphabetically on the following pages have been designed for students who wish to transfer to a senior college or university. The College counselors are available to assist the student in choosing from these suggested curricula, or in working out special arrangements to meet particular educational plans. Courses listed in the catalogue will be selected in appropriate sequence for offering on the schedule of classes from semester to semester. (DESPITE ALL OF THE ACADEMIC COUNSELING AVAILABLE, IT WILL STILL REMAIN THE RESPONSIBILITY OF EACH STUDENT TO DETERMINE HIS MAJOR AREA OF STUDY, THE SENIOR COLLEGE OR UNIVERSITY TO WHICH HE WISHES TO TRANSFER, AND THE REQUIRED COURSES AND THEIR PREREQUISITES).

The "Programs of Study" as well as the "Course Descriptions" will be divided into the following areas of academic discipline, namely: Agriculture, Business Administration, Communications, Education, Engineering, Fine Arts, Foreign Languages, Home Economics, Mathematics, Physical and Health Education, Natural Sciences, Physical Sciences, Social Sciences and Pre-Professional Programs.

## DIVISION OF ARTS AND SCIENCES

Under each academic discipline, the suggested curricula will be followed by the course descriptions.

### AGRICULTURE DEPARTMENT

#### Suggested Curriculum for Agriculture Majors

##### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Biology 141 .....	4	Biology 142 .....	4
English 131 .....	3	English 132 .....	3
History 131 .....	3	History 132 .....	3
Animal Husbandry I 131 .....	3	Entomology 135 .....	3
Agronomy 132 .....	3	Soil Science 136 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	18		17

##### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Chemistry 141 .....	4	Chemistry 142 .....	4
Principles of Economics 231 ....	3	Government 232 .....	3
Government 231 .....	3	Elective .....	3
Horticulture 234 .....	3	*Elective .....	3
Mathematics 131 .....	3	*Elective .....	3
Physical Education 211 .....	1	Physical Education .....	1
	17		17

### AGRICULTURE COURSE DESCRIPTIONS

#### 131. Animal Husbandry I. (3-2). Credit 3.

An introductory survey course. Farm animals as a source of food, clothing, and labor. The place of livestock in farming and ranching. The value of heredity and breeding for improvement, importance of judging, pedigrees, and proper nutrition. The place and adaptation of each class of livestock: show ring classification, and market and slaughter classes. (010401)

#### 132. Agronomy. (3-2). Credit 3.

Classification and distribution of farm crops, their use, production, and identification will be studied with emphasis being placed on those crops important to Texas. New crop improvement, value of rotation, use and need of fertilizer will be determined by soil testing. Meadow and pasture management will be practiced on the college farm. Weeds, plant diseases, and insect enemies will be discussed. (010301)

#### 133. Wildlife Conservation & Management. (3-0). Credit 3.

An introduction to the wildlife and fishery resources of the United States with special reference to Texas. The importance

---

\*Elective must be in agriculture. Students should check the seniors college catalogue for recommended electives.

of plants and animals in our economic and cultural life. An account of what has happened to North American wildlife with consideration of specific plans and methods for its rehabilitation, maintenance, and increase. (011001)

**134. Range Management I. (3-2). Credit 3.**

Range management for the southwestern part of the United States. Physical features affecting range conditions, problems in range management, administration and management of range lands, identification of major grasses and legumes. (010303)

**135. Entomology. (3-2). Credit 3.**

Chemical control of insects which affect crops and livestock. Control of external and internal parasites affecting animals. Safety factors in dealing with insecticides. (010601)

**136. Soil Science. (3-2). Credit 3.**

Advanced course in production practices of crops of the southwest Texas area; small grains, vegetables; use of proper amounts of fertilizers in raising these crops. Prerequisite: Agronomy 132. (010201)

**231. Farm Mechanics I. (3-6). Credit 3.**

Basic farm shop skills in tool conditions, sketching, carpentry, painting, rope work, concrete, soldering, cold metal work, basic welding. (011101)

**232. Animal Husbandry II. (3-2). Credit 3.**

Study of animal health, beef cattle, sheep and goat production. Prerequisite: Animal Husbandry I. (010402)

**233. Feeds and Feeding. (3-0). Credit 3.**

Chemical composition of feeds, nutrients, requirements of farm animals, utilization of feeds, formulating and balancing rations. (010404)

**234. Horticulture. (3-2). Credit 3.**

Growth and structure of fruit, vegetable, and ornamental plants. Effects of environment on plant production and principles and methods of propagation. (010701)

**235. Range Management II. (3-2). Credit 3.**

Improvement and management of grasslands, production, re-establishing sod, controlling weeds, and eradication of undesirable vegetation, fertilization and rotation of grasslands. Prerequisite: Range Management I. (010304)

**236. Livestock Marketing. (3-2). Credit 3.**

Areas of livestock production and consumption, problems of producers and consumers, study of the agencies concerned with processing and distribution of meat and by-products, slaughtering of livestock, future marketing. (010407)

**237. Farm and Ranch Records. (3-0). Credit 3.**

Kinds of farm and ranch records and accounts. The analysis and use of inventories and accounts. Use of inventories in obtaining credit; the combined inventory and cash account records; the complete farm and ranch budget based on inventory and cash account records; Federal income tax returns; farm



and ranch cash accounts; keeping, closing and using farm and ranch cost accounts. (011202)

**238. Farm Mechanics II. (3-6). Credit 3.**

A second course in farm shop skills for the farm and ranch student. Repair and maintenance of farm machinery; principles of gasoline engine and diesel engine; construction of fences and feed lot equipment; oxygen and acetylene welding; farm survey drainage and earthen construction. Prerequisite: Farm Mechanics I. (011102)

## BUSINESS ADMINISTRATION DEPARTMENT

### Suggested Curriculum\*

#### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
Approved Math .....	3	Approved Math .....	3
Science 141 .....	4	Science 142 .....	4
History 131 .....	3	History 132 .....	3
Introduction to Business 131 ..	3	Approved Elective .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	18		17

#### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231 .....	3	English 232 .....	3
Government 231 .....	3	Government 232 .....	3
Accounting 241 .....	4	Accounting 242 .....	4
Psychology 231 .....	3	Speech 233 .....	3
Economics .....	3	Economics 232 .....	2
Physical Education 211 .....	1	Physical Education 212 .....	1
	17		

## BUSINESS ADMINISTRATION COURSE DESCRIPTIONS

### ACCOUNTING

**241. Principles of Accounting. (PA) (3-3). Credit 4.**

Analysis and recording of business transactions; use of journal and ledger; accounting statements; payroll records and payroll taxes; introduction to partnership accounting; special journals and ledgers; vouchers system. (030101)

**242. Principles of Accounting. (PA) (3-3). Credit 4.**

Continuation of Accounting 241. Internal control; partnership and corporation accounting; accounting for manufacturing concerns; analysis and interpretation of statements. Prerequisite: Accounting 241. (030101)

---

\*B.B.A. major may substitute one year of accounting for the one year of science or languages to meet associate degree requirements. Senior college degree requirements vary considerably. Students should check the specific catalogue for exact requirements.

**231. Intermediate Accounting. (2-3). Credit 3.**

Working papers and preparation of statements; correction of books and statements; special phases of corporation accounting; cash and receivables; inventories, investments. Prerequisite: Accounting 242. (Adult Program). (030102)

**232. Intermediate Accounting (2-3). Credit 3.**

Investments; tangible and intangible fixed assets; liabilities; reserves; statement analysis; business combinations, reorganizations; price-level impact on financial statements. (030102)

**233. Elementary Cost Accounting. (3-0). Credit 3.**

Cost accounting principles relating to material, labor, and manufacturing expenses; cost accounting practices and procedures; process cost accounting. Prerequisite: Accounting 242. (030108)

**234. Auditing. (3-0). Credit 3.**

Auditing procedures used by internal auditors and independent public accountants; preparation of working papers. (030107)

**235. Income Tax. (3-0). Credit 3.**

Income tax legislation; present income tax law and regulations; treasury decisions, court decisions, and departmental rulings; income tax problems and returns. (030105)

**236. Insurance. (3-0). Credit 3.**

Introduction to theory and practice of insurance, including life, fire, automobile, and personal and business risk. Prerequisite: Sophomore classification. (030305)

**237. Life Insurance. (3-0). Credit 3.**

Principles of life insurance; business and personal use in insurance; classification and analysis of policies; reserves and policy values; organization and administration of life insurance companies. (030306)

**238. Programming for Business Statistics. (3-0). Credit 3.**

Computer components and languages with emphasis on FORTRAN; heuristic and algorithmic computing techniques; flow-charting; applications to measures of central tendency, variation, index numbers, curve fitting for time series; impact of computer systems on decision-making. This course should be taken at the beginning of the sophomore year. Prerequisite: Six hours of mathematics. (030606)

## BUSINESS AND ECONOMICS

**131. Introduction to Business. (IB) (3-0). Credit 3.**

Provides over-all picture of business operation; includes analysis of specialized fields within business organizations; identifies role of business in modern society. (030301)

**132. Business Organization. (3-0). Credit 3.**

Authority, delegation, responsibility; functional analysis of organization and management; organization for production, distribution, and finance. Prerequisite: I.B. 131 or approval of

instructor. (030402)

**231. Principles of Economics. (3-0). Credit 3.**

Elementary principles of economics; the economic problem, measurement and determination of national income, money and banking, and theory of price. Prerequisite: Sophomore classification. (180301)

**232. Principles of Economics. (3-0). Credit 3.**

Analysis of economic aggregates, theory of production and of the firm, international economic relations and labor problems. Prerequisite: Eco. 231. (180301)

**237. Real Estate Fundamentals. (3-0). Credit 3.**

Basic factors and agencies in modern real estate development; historic, economic, legal, and social aspects of real estate; appraisal financing, and agency management. (030309)

**238. Real Estate Law. (3-0). Credit 3.**

Contains a study of sources of real estate law, legal estates and ownership, deeds, contracts, law of agency and brokerage, escrow agreements, closing of sales, title assurance methods, mortgages, liens, leases, homesteads, wills, administration of estates, zoning and building ordinances, property taxation and other matters of law which pertain to real estate transactions. (030309)

**238a. Real Estate Appraisal. (3-0). Credit 3.**

This comprehensive course in the valuation of Real Estate includes the functions, purposes, and techniques of appraising land and improvements. (030309)

**238b. Real Estate Finance. (3-0). Credit 3.**

This course includes the study of Federal and State practices in mortgages and Real Estate Finance, also includes a survey of Savings and Loan Associations, Commercial Banks, Life Insurance Companies and Mortgage Bankers. (030309)

**239. Labor-Management Relations. (3-0). Credit 3.**

Labor relations aspects of personnel management emphasized, selection and placement, discipline and morale, promotions, layoffs, job evaluation, incentive systems, profit sharing and the influence of collective bargaining and legislation on personnel policies. Methods used by organized labor and employers in industrial conflicts. (030405)

## BUSINESS LAW\*

**231. Business Law. (3-0). Credit 3.**

Nature and scope of law; court system; law of contracts; principal and agent; business organizations, including partnerships and corporations; Texas community property laws. Prerequisite: Sophomore classification. (030304)

---

\*Sophomore classification at Texas A&M; Junior classification at the University of Texas.

**232. Business Law. (3-0). Credit 3.**

Additional studies in law of business, dealing with bailments, carriers, mortgages, suretyships, negotiable instruments, banks and banking, wills and estates, sales, bankruptcy. Prerequisite: Business Law 231. (030304)

**BUSINESS MATHEMATICS****131b. Business Mathematics. (3-0). Credit 3.**

Application of arithmetic processes to particular business problems. Percentages; discounts; prices; profit and loss; commissions, interest. (140605)

**132b. Mathematics of Finance. (3-0). Credit 3.**

Simple and compound interest, annuities, amortization, sinking funds, depreciation, life insurance. (140604)

**SECRETARIAL SCIENCE****Freshman Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131b .....	3	English 132b .....	3
Office Machines 131 .....	3	Secretarial Practices 131 .....	3
Filing, Duplicating, Voice		*Intermediate Shorthand 132 ..	3
Writing 131 .....	3	*Intermediate Typewriting 132 ..	3
*Beginning Shorthand 131 .....	3	Elective .....	3
*Beginning Typewriting 131 .....	3	Physical Education 112 .....	1
Physical Education 111 .....	1		
Psychology 111 .....	1		16
	17		

**Sophomore Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Math 131b .....	3	Bookkeeping 132 .....	3
Bookkeeping 131 .....	3	Introduction to Business 131 ..	3
*Advanced Shorthand 231 .....	3	Report Writing 133 .....	3
*Advanced Typewriting 231 .....	3	Approved Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	16		16

Advanced work may be taken in the Secretarial Sciences as well as punch card, sorter, reproducing punch, collator, alphabetical accounting machines and other more advanced electronic data processing systems.

**COURSE DESCRIPTIONS****131. Bookkeeping. (BK) (2-2). Credit 3.**

Elementary principles of bookkeeping, journalization; posting, statements; special journals; subsidiary ledgers. (030201)

\*Beginning or advanced levels of shorthand and typing will be determined by the academic counselor based on the student's current skill, if any.

**132. Bookkeeping. (BK) (2-2). Credit 3.**

Analysis and recording of business transactions; use of journal and ledger; trial balance and work sheet; adjusting and closing entries; accounting statements; payroll records and payroll taxes; introduction to partnership accounting; special journals and ledgers; business papers and business procedures relating to accounting; voucher system. (030201)

**131. Secretarial Practices. (SP) (1-3). Credit 3.**

Office conduct; special aids to efficiency in office routine; letter structure and other style problems; filing and finding academic and business reports; communication and transportation problems. (030506)

**131b. Business English. (3-0). Credit 3.**

Fundamentals of grammar, punctuation and sentence structure as employed in written business communications. Work study; sentence analysis; punctuation; paragraphing; planning. (030509)

**132b. Letter Writing. (3-0). Credit 3.**

A course designed to teach effective business writing and to give practice in composing all types of business letters, including the letter of application as a practical personal help. (030510)

**133. Report Writing. (RW) (3-0). Credit 3.**

The writing of technical reports and business letters. (070401)

**131. Beginning Shorthand. (BS) (3-3). Credit 3.**

Introduction to Gregg simplified shorthand. Reading; writing; theory principles; brief forms. (030502)

**132. Intermediate Shorthand. (IS) (3-3). Credit 3.**

Continuation of 131. (030502)

**231. Advanced Shorthand. (AS) (3-3). Credit 3.**

Improvement of ability to take dictation and transcribe mailable copy. Theory principles; brief form derivatives; vocabulary development; speed building; mailable transcription office style dictation. (030503)

**131. Elementary Typewriting. (ET) (3-2). Credit 3.**

A beginning course in touch typewriting for the mastery of machine parts and the keyboard. Special emphasis on speed development, including an introduction to letter writing. (030504)

**132. Intermediate Typewriting. (IT) (3-2). Credit 3.**

A continuation of Typewriting 131. Composition and typing of business letters, tabulation, typing of manuscripts. (030504)

**231. Advanced Typewriting. (AT) (3-2). Credit 3.**

This course includes advanced work in such specialized production as tabulation, inter-office correspondence, manuscripts, telegrams, stencil cutting and mimeograph operation, legal forms and additional work on the arrangement of business letters. (030507)

### 131. Filing, Duplicating, Voice-Writing. (FDV) (3-3). Credit 3.

Procedures of filing and finding operations employed in business offices, standard filing systems. Training in the operation of liquid duplicators in addition to a certificate course in mimeograph operation. Development of typing skills from belts and records on the electric typewriter through mastering the operation of voice-writing and transcribing equipment. Required for secretarial and business education majors. (030506)

### 131. Office Machines. (OM) (3-2). Credit 3.

Technique familiarization in the operation of the most commonly used office machines. Computations; calculations; speed drills; percentages; discounts and net values; chain discounts; business forms. (030601)

## COMMUNICATIONS DEPARTMENT

(English, Forensics, Journalism)

### Suggested Curriculum for English Majors

Freshman Year			
First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
Mathematics 131 .....	3	Mathematics 132 .....	3
Foreign Language 141* .....	4	Foreign Language 142* .....	4
Science 141* .....	4	Science 142* .....	4
History 131 .....	3	History 132 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	<hr/> 19		<hr/> 18

Sophomore Year			
First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231 .....	3	English 232 .....	3
Foreign Language 231 .....	3	Foreign Language 232 .....	3
Science 241 .....	4	Science 242 .....	4
Government 231 .....	3	Government 232 .....	3
Elective .....	3	Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/> 17		<hr/> 17

## ENGLISH COURSE DESCRIPTIONS

### 111, ~~112~~ Speed Reading. (2-1). Credit 2.

A laboratory course designed to remedy a student's reading disability and to increase his reading speed and comprehension. In addition to the two one-hour courses per week, two thirty minute practice periods are required. English 112 is a continuation of English 111. (170102)

\*Check particular foreign language and science required by senior institution where student wishes to transfer.

**130. English Fundamentals. (3-0). Credit 3.**

A study of basic compositional skills with emphasis on sentence structure and paragraph structure. This course is offered as a service to students who are not prepared for English 131. (070101)

**131. Composition and Rhetoric. (3-0). Credit 3.**

Composition of short papers, with emphasis on sentence structure, paragraph development, and paper organization. Analysis of expository prose. (070102)

**132. Composition and Rhetoric. (3-0) Credit 3.**

Continuation of English 131. More complex methods of paper development; investigative papers. Selected readings. Prerequisite: English 131 or advanced standing. (070102)

**133. English for Foreign Students. (3-0) Credit 3.**

Speaking and writing for students whose native language is not English. Students entering course are expected to be able to communicate in English. (070201)

**231. English Literature. (3-0). Credit 3.**

A survey of English Literature from Chaucer through the eighteenth century. The study includes selections of poetry, prose and drama. Prerequisites: English 131, 132. (070305) *must*

**232. English Literature. (3-0). Credit 3.** *have 131, 132 or else*  
A survey of English Literature beginning with the Romantic Period and including masterpieces of Victorian and contemporary writers. The study includes selections of poetry, prose, and drama. Prerequisites: English 131, 132. (070305) *it won't transfer*

**233, 234. Western World Literature. (3-0). Credit 6.**

A study of masterpieces of Western World Literature from Homer through the First World War. Prerequisites: English 131, 132 or the equivalent. (070313)

**\*236. Shakespeare. (3-0). Credit 3.**

Study of major plays of Shakespeare, with lectures on his art, his language, and his cultural environment. Prerequisite: English 132. (070306)

**237. American Literature. (3-0). Credit 3.**

A survey of the best American prose and poetry, beginning with Washington Irving and continuing through the present writers. Prerequisites: English 131, 132. (070304)

**Suggested Curriculum for Forensics Majors****Freshman Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
History 131 .....	3	History 132 .....	3
Foreign Language 141 .....	4	Foreign Language 142 .....	4
Speech 131 .....	3	Speech 132 .....	3
Theatre 131 .....	3	Speech 133 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	18		17

\*Students who plan to transfer to Texas A&M University should take English 236 instead of English 237.

## Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231 .....	3	English 232 .....	3
Government 231 .....	3	Government 232 .....	3
Foreign Language 231 .....	3	Foreign Language 232 .....	3
Speech 231 .....	3	Speech 232 .....	3
Elective .....	3	Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
<hr/>		<hr/>	
16		16	

## Suggested Curriculum for Speech Education Majors

## Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
History 131 .....	3	History 132 .....	3
Speech 131 .....	3	Speech 132 .....	3
Science 141 .....	4	Science 142 .....	4
Foreign Language 141 .....	4	Foreign Language 142 .....	4
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
<hr/>		<hr/>	
19		18	

## Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231 .....	3	English 232 .....	3
Government 231 .....	3	Government 232 .....	3
Elective .....	3	Psychology 231 .....	3
Speech 231 .....	3	Speech 232 .....	3
Elective .....	3	Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
<hr/>		<hr/>	
16		16	

## FORENSIC COURSE DESCRIPTIONS

111, 112,

113, 114. **Speech Laboratory.** (0-2) Credit 4.

A laboratory for rehearsal and execution of department projects, and demonstrations of related speech activities by faculty, visitors, and students. (040308)

131. **Fundamentals of Effective Speech.** (3-0) Credit 3.

Instruction in the theory of the voice, articulation, pronunciation, bodily activity, language, and the elements of speech preparation. Practice in the presentation of speeches and printed material with emphasis on the use of fundamentals of speech production. A study of speech construction, including the use of outlining and supporting materials. Practice is given in outlining, preparing, and presenting special types of speeches with emphasis on extemporaneous speaking. (040302)

132. **Voice and Diction.** (3-0). Credit 3.

To develop and establish a good voice habit through a study of the principles and practice of the techniques involved in



excellence of voice and diction. Drill work and materials for practice are selected to suit individual needs. (040303)

**133. Debate. (3-0). Credit 3.**

The study of the principles of argumentation and debate. Practice in preparing written and spoken arguments are afforded in this course. (040310)

**231. Interpretive Reading. (3-0) Credit 3.**

Intensive study and practice in the analysis and oral interpretation of the short story, ballad, narrative poem, lyric, sonnet, essay and the drama. Prerequisite: Speech 131. (040311)

**232. Persuasive Speaking. (3-0). Credit 3.**

The techniques of persuasion and audience analysis. A study of speech as a motivating force in human conduct. Organization and practice in speaking; reading and discussion of current speeches. Recommended to students interested in sales and advertising. (040309)

**233. Business and Professional Speaking. (3-0). Credit 3.**

Designed to aid the prospective business or professional person in preparing various types of speaking assignments such as he might encounter in his career. It is planned for agriculture, business, and home economics majors, and for other students seeking one course in public speaking. Emphasis is upon structure and techniques of presentation. (040307)

**234. Parliamentary Procedure. (3-0). Credit 3.**

Parliamentary procedure and rules of order as needed by club leaders and sponsors of school clubs. Meets on an organized basis for practice in conducting meetings. (040305)

**235. Voice and Phonetics. (3-0). Credit 3.**

A study of the voice mechanism and the International Phonetic Alphabet in order that the student may improve vocal performances and correct careless and ineffective speech habits. (040304)

## Suggested Curriculum for Journalism Majors

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Journalism 131 .....	3	Journalism 132 .....	3
English 131 .....	3	English 132 .....	3
History 131 .....	3	History 132 .....	3
Speech 131 .....	3	Psychology 131 .....	3
*Elective .....	3	*Elective .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	17		16

\*Foreign Language recommended.

## Sophomore Year

First Semester		Hours	Second Semester		Hours
Subject			Subject		
Journalism 231	.....	3	Journalism 212	.....	1
English 231	.....	3	English 232	.....	3
Government 231	.....	3	Government 232	.....	3
Economics 231	.....	3	Economics 232	.....	3
*Elective	.....	3	Geography 231	.....	3
Physical Education 211	.....	1	*Elective	.....	3
		16	Physical Education 212	.....	1
					17

## JOURNALISM COURSE DESCRIPTIONS

111, 112,

211, 212. Journalism Laboratory. (0-2). Credit 4.

Application of journalism principles in production of College publications. Offered for terminal credit, but may be accepted by some colleges. (120401)

131. Communications Media and Principles. (2-1) Credit 3.

Introductory survey of mass communications media, their purpose and methods of operation to give the journalism major a panoramic view and the non-major an understanding of importance of communications media in modern society. (120101)

132. News Gatherings and Reporting. (2-3). Credit 3.

Instruction and practice in interviewing and writing; discussion of news sources, news values, and various types of news stories. Prerequisites: Journalism 131, English 131. (120108)

\*231. News Editing and Copy Reading. (2-2). Credit 3.

A comprehensive study of copy editing for errors of fact and interpretation of English and newspaper style: headline writing; proof reading and page make-up. Fundamentals of typography as related to newspaper make-up are stressed. (120105)

## EDUCATION DEPARTMENT

## Suggested Curriculum

## Freshman Year

First Semester		Hours	Second Semester		Hours
Subject			Subject		
English 131	.....	3	English 132	.....	3
History 131	.....	3	History 132	.....	3
Science 141	.....	4	Science 142	.....	4
Foreign Language 141	.....	4	Foreign Language 142	.....	4
Elective	.....	3	Speech 131	.....	3
Psychology 111	.....	1	Physical Education 112	.....	1
Physical Education 111	.....	1			18
		19			

\*Foreign Language recommended.

\*Students should check the catalogue of the senior college to which they plan to transfer before registering for this course.

## Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231 .....	3	English 232 .....	3
Government 231 .....	3	Government 232 .....	3
*Foreign Language 231 .....	3	*Foreign Language 232 .....	3
Psychology 231 .....	3	Elective .....	3
Sociology 231 .....	3	Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
<hr/>		<hr/>	
16		16	

## EDUCATION COURSE DESCRIPTIONS

**231. Introduction to Education. (3-0). Credit 3.**

Designed to give an overview of the aims, organization, and procedures of the whole field of education, and to furnish information regarding the opportunities and requirements in education as a profession. (050103)

**232. Educational Psychology. (3-0). Credit 3.**

A study of the psychology of education, including the aims and needs of education, the behavior of children, the learning process, and modification of responses through education. (050102)

**233. Safety and Driver Education. (2-2). Credit 3.**

The study of safety education in the home, school, and community, and study of skills and driving habits; operation of the motor vehicle; national, state, and local motor laws; and local and state driver's license upon completion of requirements. (090208)

**234. The Teaching of Reading in the Elementary School. (3-0). Credit 3.**

Study of the reading process and the factors which condition its development. The importance of reading in school and in life serves as a background for critical evaluation of the methods and materials of reading instruction. Consideration is given to such topics as reading readiness, measurements, diagnosis, remedial reading and the various instruments developed for use in the field of reading. (050202)

**235. The Teaching of Language Arts in the Elementary Schools. (3-0). Credit 3.**

This course deals with the principles, problems, and language in the upper elementary grades. Correct use of the language function in conveying ideas interestingly and adequately in social activities is stressed. A study is made of state texts, library books, and other teaching material. (050203)

\*Recommended: Math 131 and 132 may be substituted for second year language.

**236. Children's Literature. (3-0). Credit 3.**

This is a course in the teaching of children's literature, a study of children's literature itself, of the pioneers in the field and the writers of the present day. (070312)

**237. Teaching of Arithmetic in the Elementary School. (3-0). Credit 3.**

Consideration is given to recent research studies in the teaching of arithmetic as well as to recommend techniques. Prerequisite: Twelve semester hours of Education. (050202)

**ENGINEERING DEPARTMENT****Suggested Curriculum****Freshman Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Engineering 131 .....	3	Engineering 132 .....	3
Mathematics 134 .....	3	Mathematics 232 .....	3
Mathematics 231 .....	3	Elective .....	3
English 131 .....	3	English 132 .....	3
*Science 141 .....	4	*Science 142 .....	4
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	<hr/> 18		<hr/> 17

**Sophomore Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
History 131 .....	3	History 132 .....	3
†English 131 .....	3	†English 131 .....	3
Government 231 .....	3	Government 232 .....	3
**Engineering Elective .....	3	**Engineering Elective .....	3
Physics 241 .....	4	Physics 242 .....	4
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/> 17		<hr/> 17

**ENGINEERING COURSE DESCRIPTIONS****Engineering Graphics****111. Engineering Problems. (1-0). Credit 1.**

This is an introductory course in engineering problems for students of physics and engineering, which includes elementary statics, dynamics, and the use of slide rule. Emphasis is given to the engineering method of analysis in problem solving. (060102)

**131. Engineering Graphics. (1-6). Credit 3.**

Freehand and instrument drawing, dimensioning, fastening,

\*Check senior college for specific science. Variations occur with different engineering majors.

†Check senior college catalogue to see if Technical English is required.

\*\*Check senior college catalogue for specific engineering course(s) required. Variations occur with different engineering majors.

pictorial methods, charts and graphs, projection drawings, geometry of graphical construction, graphical design. Required for beginning engineering students. (060806)

**132. Descriptive Geometry. (3-6). Credit 3.**

Principles of descriptive geometry and their application to engineering architecture, and geology. Includes methods of graphical representation and determination of visibility; auxiliary and oblique views; point, line and plane problems; intersections of surfaces and developments; warped surfaces and engineering, geology and mining problems. (060804)

**133. Drafting. (2-4). Credit 3.**

Engineering lettering, orthographic projection, pictorial drawing and sketching. (060801)

**134. Drawing. (2-4). Credit 3.**

Freehand drawing, training in observation and delineation, elementary visual perspective. (060802)

### Civil Engineering

**135, 136. Plane and Topographic Surveying. (3-3). Credit 6.**

Use and care of instruments; note keeping; distance measurements; traverse surveying; areas; angles and elevations; legal principles; elementary map making. Plane-table and transit methods of topographic map production; field problems related to highway surveying circular and vertical curves; earthwork, volumes and cost estimates; triangulation and base lines. (060402)

**137. Route Surveying. (3-3). Credit 3.**

Route location, mathematics of compound, spiraled, and vertical curves; field astronomy; earthwork calculations; mass diagram. (060403)

**138. Mechanics of Materials. (3-0). Credit 3.**

Stresses; deformation; stress strain properties; mechanics of thin-walled cylinders, beams, shafts, columns, riveted and welded joints; elastic deflections in beams, combined loading, combined stresses. (060205)

**231. Engineering Mechanics. (3-0). Credit 3.**

Introduction to basic mechanics, particle motion, Newton's law, work-energy and impulse-momentum, principles for particles; force resultants, introductory rigid body statics. (060703)

**232. Dynamics. (3-0). Credit 3.**

A study of the motion of rigid bodies and of the force systems that act on rigid bodies which have non-uniform motion. (060705)

### Electrical Engineering

**241, 242. Fundamentals of Electrical Engineering. (3-4). Credit 8.**

Fundamental relationships of electricity and magnetism.

Analysis of direct-currents circuits under steady state and transient conditions. Solution of magnetic circuits. Introduction to alternating currents. Mathematical and physical treatment of force actions and energy relations in electrostatic and electromagnetic fields; capacitance and inductance of systems of conductors; ferromagnetism, permanent magnets; combined electric and magnetic field. (060501)

**243. Electricity and Magnetism. (3-4). Credit 4.**

Lectures, recitations, and problems in electricity and magnetism. A laboratory investigation of the phenomena studied in the textbook. (060502)

## FINE ARTS DEPARTMENT

(Art, Music, Theatre Arts)

### Suggested Curriculum for Art Majors

#### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
History 131 .....	3	History 132 .....	3
Foreign Language 141 .....	4	Foreign Language 142 .....	4
*Art (two courses) .....	6	*Art (two courses) .....	6
Psychology 111 .....	1	Physical Education 112 .....	1
Physical Education 111 .....	1		
	18		17

#### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231 .....	3	English 232 .....	3
Government 231 .....	3	Government 232 .....	3
*Art (two courses) .....	6	*Art (two courses) .....	6
Foreign Language 231 .....	3	Foreign Language 232 .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	16		16

### ART COURSE DESCRIPTIONS

**131, 132. Freehand Drawing. (2-4). Credit 6.**

Drawing in charcoal, pencil, pen, wash, conte crayon, and pastel. The subject matter is varied with emphasis on the human figure. A study of both abstractions and expressive drawing is included. (020702)

**133, 134. Creative Design. (2-4). Credit 6.**

A basic course in the fundamentals of color and form, the elements and principles of design and color theory. (020303)

**135. Color Composition. (2-4). Credit 3.**

Theory of color and form involving definite technical pro-

---

\*Students should check the catalogue of the senior college to which they plan to transfer for particular Art course(s).

cedures in the various properties of color theories and their application to painting. Media: watercolor and oil. (020302)

**136. Figure Drawing. (2-4). Credit 3.**

Quick sketches in pencil, conte and charcoal of draped living models. Introduction to handling of form, movement and proportion through the study of line, three dimensional form, dark and light, and composition. (020703)

**137. Landscape Composition. (2-4). Credit 3.**

Introduction to landscape composition and the handling of problems encountered in relation to form, movement, and dark and light to control composition. Media: pencil, conte and charcoal. Prerequisites: Art 131 and 134. (020302)

**138. History and Appreciation of Art. (3-0). Credit 3.**

An elementary survey course illustrated with lantern slides and moving pictures treating of the Ancient to the Medieval periods, styles and great personalities in painting, sculpture, architecture and the minor arts. No knowledge of art necessary. (020201)

**139. History and Appreciation of Art. (3-0). Credit 3.**

An elementary survey course treating styles and great personalities of the Renaissance period through contemporary art. A study of painting, sculpture, architecture and the minor arts. No knowledge of art necessary. (020201)

**231. The Teaching of Art in the Elementary School. (3-0).**

**Credit 3.**

Methods and techniques necessary for the direction of a program of creative art and handicrafts in the elementary grades. (021101)

**232. Oil Techniques. (2-4). Credit 3.**

Introduction to the techniques of oil painting, exploring the problems encountered in still life composition, object appearance conditioned to meet the requirements of controlled composition and aesthetic precepts. Prerequisites: Art 131, 133, and 135. (020901)

**233. Advanced Oil Painting. (2-4). Credit 3.**

A course designed to further the individual's skill in painting through the study of advanced problems in composition. Special investigation into the fundamental tenets of contemporary painting. Prerequisite: Art 232. (020902)

**234. Watercolor Painting. (2-4). Credit 3.**

Painting for second year students stressing problems of painting in watercolor with emphasis on composition and techniques. (020903)

**235, 236. Commercial Art. (2-4). Credit 6.**

Principles of advertising, processing of reproduction, merchandise illustration, typography and lettering and layout. Direct mail folder design, labels, points of purchase advertising, window cards, poster design. (020603)

**237. Pen and Ink Techniques. (2-4). Credit 3.**

Designed to give the student an opportunity to experiment

with the various techniques used in pen and ink rendering. Study of the possibilities and limitations of this media, with special attention given to the study of line, three dimensional form, texture, light and dark, and composition. Prerequisites: Art 131 and 133. (020705)

**238. Landscape Watercolor. (2-4). Credit 3.**

Painting for second-year students stressing problems of landscape painting in watercolor with emphasis on composition and techniques. Prerequisites: Art 135 and 137. (020903)

**239. Landscape Oils. (2-4). Credit 3.**

This course is designed for the advanced student stressing the organization, composition, and techniques encountered in landscape painting. Prerequisites: Art 137 and 233. (020902)

**239a, 238b. Ceramics. (1-4). Credit 6.**

Making of pottery shapes by coil, slab, and moved methods; refining and using native clays; underglaze paintings; bisque and glaze firing; original pottery forms; treatment of pottery surfaces; mixing of glazes and their application to pottery. (020401)

**239c, 239d. Sculpture. (2-4). Credit 6.**

Elementary instruction in the principles of sculpture. Prerequisite: Art 132, or the equivalent, and approval of the instructor. (021001)

**239e, 239f. Creative Hobbies. (3-3). Credit 6.**

For recreational leaders, prospective teachers or workers with therapeutic art for hospital work, or for anyone wishing to develop a hobby. Study and practice of weaving, modeling, carving, leather craft, or textile printing, dyeing, enamel and metal work, etc. Conducted as a work shop, each student choosing crafts of individual interest. (020801)

## MUSIC

### Suggested Curriculum for Music Majors

#### Freshman Year

Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
History 131 .....	3	History 132 .....	3
Music 141 .....	4	Music 142 .....	4
*Music .....	6	*Music .....	6
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	<hr/> 18		<hr/> 17

\*Music courses will vary with the specific music major as well as with senior colleges. Majors in Applied Music, Piano, Voice, and Music Education should check senior college catalogue and see Central Texas College Academic Counselor.



## Sophomore Year

First Semester		Hours	Second Semester		Hours
Subject			Subject		
English 231 .....	3		English 232 .....	3	
Government 231 .....	3		Government 232 .....	3	
Physical Education 211 .....	1		*Music .....	6	
*Music .....	6		Elective .....	3	
Elective .....	3		Physical Education 212 .....	1	
		16			16

## MUSIC COURSE DESCRIPTIONS

**111, 112, 211, 212. Choir. (0-4). Credit 4.**

Designed to acquaint students with the best in classical and modern chorale music, cantatas, smaller forms, and music from all over the world. (150403)

**111a, 112a, 211a, 212a. Concert Band. (0-4). Credit 4.**

Rehearsal for concert music. Non-music majors may participate. (150401)

**131. Music Appreciation. (3-0). Credit 3.**

A foundation in enjoyment and understanding of music through the use of recorded music and song literature. Elements of music and analysis of music form and design and its relation to other subjects and activities. (150101)

**132. Music Fundamentals. (3-0). Credit 3.**

An introduction to the elements of music, including study of the staff, clefs, key signatures, scales, time signatures, notation, meter and rhythm; sight singing; major and minor chords; application of theory at the keyboard; rhythmic, melodic, and harmonic ear training. (150102)

**134. Music Literature. (3-0). Credit 3.**

A survey of the principal forms, periods, and composers of music, presented in lectures with laboratory listening periods. (150104)

**135. Music Literature. (3-0). Credit 3.**

A continuance of the first semester of Music Literature with a more thorough study in the periods of late nineteenth and twentieth century, sacred and secular, vocal and instrumental music. Presented in lectures coordinated with recordings and performances. (150104)

**141, 142. Music Theory. (3-3). Credit 8.**

Singing modulations to closely related keys; modal melodies. Aural study of superimposition; compound intervals; melodic and harmonic modulation; all diatonic seventh chords. Singing remote modulations and difficult melodies. Aural study of unusual and mixed meters; altered chords; 9th, 11th and 13th chords. (150106)

\*Music courses will vary with the specific music major as well as with senior colleges. Majors in Applied Music, Piano, Voice, and Music Education should check senior college catalogue and see Central Texas College Academic Counselor.

**231, 232. Advanced Harmony. (3-0). Credit 6.**

Part writing of figured bass exercises and melody harmonizations requiring all diatonic seventh chords and modulation; styles of writing other than the chorale style. Composition in two- and three-part song forms. Keyboard study of harmonic progression and melody harmonizations requiring all diatonic seventh chords; modulation to closely related keys. (150108)

**MUSIC EDUCATION****233. Public School Music Methods and Materials. (3-0). Credit 3.**

Techniques and materials for music instruction in kindergarten and grades one through three; includes experiences in singing, playing, listening, rote songs, rhythmic and creative activities. (150501)

**234. Public School Music Methods and Materials. (3-0). Credit 3.**

Techniques and materials for music instruction in grades four, five, and six. Includes music reading, part-singing, listening, playing, voice-testing, rhythmic and creative activities. (150501)

**235. Teaching of Music in the Elementary School. (3-0). Credit 3.**

This course is designed for music students, covering the field of music teaching in the primary and intermediate grades. Singing, listening, and creative music are approached from the standpoint of the child, the teacher, and the supervisor. (150501)

**236. Teaching of Music in the Elementary School. (3-0). Credit 3.**

A continuation of 235 above, with emphasis on teaching music from the standpoint of the elementary school teacher. Rote songs, music reading, rhythms, part singing, listening lessons. A study is made of the child voice and materials available for use in the primary and intermediate grades. Correlation of music with the other subjects in the curriculum is emphasized. (150501)

**APPLIED MUSIC****Piano****111, 112. Piano. Credit 2.**

This is a course in the fundamentals of piano playing. Students are accepted as beginners or at any stage of pianistic ability. Material will be selected by the instructor to suit the individual student. One half-hour private lesson each week. (150305)

**121, 122. Piano. Credit 4.**

This course includes the study of the Bach Two-Part Inventions or selections from the French Suites; one movement from

a Sonata by Haydn, Mozart or Beethoven; romantic and modern compositions. All major and minor scales and arpeggios and selected Czerny studies. Two half-hour private lessons each week. (150305)

**131, 132. Piano. Credit 6.**

This course includes the study of the Bach Two- and Three-Part Inventions, Suites and Partitas; one complete sonata by Mozart or Beethoven; one movement from a concerto by Mozart, Beethoven or Mendelssohn; Romantic and Modern compositions of similar difficulty. All major and minor scales in octaves, 3rds, 6ths and 10ths, triad, dominant and diminished 7th arpeggios. Two half-hour private lessons each week. (150305)

**211, 212. Piano. Credit 2.**

This is a course for the continued development of ease and facility in piano playing. Materials will be selected by the instructor to suit the individual student. One half-hour private lesson each week. (150305)

**221, 222. Piano. Credit 4.**

This course includes the study of the Bach Two- and Three-Part Inventions, studies from Czerny Op 299 or 740, one complete sonata by Mozart, Haydn or Beethoven, other romantic and modern compositions of similar difficulty, all major and minor scales, triad, dominant and diminished 7th arpeggios. Two half-hour private lessons each week. (150305)

**231, 232. Piano. Credit 6.**

This course includes the study of Preludes and Fugues from the Well-Tempered Clavichord by Bach; one complete sonata by Mozart or Beethoven and one complete concerto; Chopin Etudes and other romantic and modern compositions of similar difficulty; major and minor scales and arpeggios. Two half-hour private lessons each week. (150305)

## Voice

**111, 112. Voice. Credit 2.**

This is a course in which the student is trained in the fundamentals of voice culture. In addition, he is given instruction in correct posture, breathing, diction, vowel purity, tone production, and placement. He will learn simple songs in English. One half-hour private lesson each week. (150306)

**121, 122. Voice. Credit 4.**

This course includes further training in the fundamentals of voice culture. Added instruction is given in correct posture, breathing, diction, vowel purity, tone production, and placement. There are basic exercises on scales and sustained tones. The student is given an introduction to the fundamentals of Italian diction. There is the development of basic repertoire to include early English and Italian songs. Two half-hour private lessons each week. (150306)

**131, 132. Voice. Credit 6.**

This course stresses the development of proper habits of voice study, with emphasis upon procedure and organization of the study and practice of vocalization and song literature, including early English, Italian, French and German art songs. Two half-hour private lessons each week. (150306)

**211, 212. Voice. Credit 2.**

In this course there is the continued development of vocal facility and ease and beauty of tone production. One half-hour private lesson each week. (150306)

**221, 222. Voice. Credit 4.**

This course is a more detailed, systematic review of the fundamentals of vocal production. It includes a careful study of tone placement and color, phrasing, style and interpretation. There is a stronger emphasis on the study and correction of vocal problems through the continued development of repertoire. Two half-hour private lessons each week. (150306)

**231, 232. Voice. Credit 6.**

This course includes intensive work for the further development of good tone, pitch consciousness and good diction. It includes a summary of all previous technical exercises and the study of more difficult songs from the classic, romantic and modern writers of Italian, French and German. Two half-hour private lessons each week. (150306)

### Instruments

**111, 112. Private Instrument. Credit 2.**

This course includes the fundamentals of a set instrument such as embouchure, breathing, tone production and fingering. One half-hour private lesson each week. (150304)

**121, 122. Private Instrument. Credit 4.**

This is an introduction to the problems of instrument playing. The student learns simple solos. There is some study of scales and arpeggios. Two half-hour private lessons each week. (150304)

**131, 132. Private Instrument. Credit 6.**

This is a review of the fundamentals of instrument playing. It includes more advanced studies of scales, arpeggios and solos. Two half-hour private lessons each week. (150304)

**221, 222. Private Instrument. Credit 4.**

This includes more advanced solos, studies, etudes, in addition to review of basic materials of previous grades. Two half-hour private lessons each week. (150304)

**231, 232. Private Instrument. Credit 6.**

This includes advanced scale studies. Two half-hour private lessons each week. (150304)

## THEATRE ARTS

### Suggested Curriculum for Theatre Arts Majors

#### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Theatre 111 .....	1	Theatre 112 .....	1
Theatre 131 .....	3	Theatre 132 .....	3
Theatre 133 .....	3	Theatre 134 .....	3
English 131 .....	3	English 132 .....	3
History 131 .....	3	History 132 .....	3
*Foreign Language 141 .....	4	*Foreign Language 142 .....	4
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	19		18

#### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Theatre 211 .....	1	Theatre 212 .....	1
Theatre 231 .....	3	Theatre 232 .....	3
Theatre 233 .....	3	Theatre 234 .....	3
English 231 .....	3	English 232 .....	3
Government 231 .....	3	Government 232 .....	3
*Foreign Language 231 .....	3	*Foreign Language 232 .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	17		17

### THEATRE ARTS COURSE DESCRIPTIONS

111, 112, 211, 212. Rehearsal and Performance. (0-4). Credit 4.

Theatre laboratory course. (040211)

131. Introductory Study of the Theatre. (2-4). Credit 3.

A general survey of the major fields of theatre art. For students who have a limited theatrical experience or knowledge. Emphasis on the various types and styles of plays, elementary theory and practice of acting and directing, basic principles of technical production; methods of construction and handling of scenery, elementary problems in scene design, stage lighting, costume and costume design. Participation in major productions. (040201)

132. The Contemporary Theatre. (3-0). Credit 3.

Study of twentieth-century theatre and American, English, and Continental plays. (040203)

133, 134. Introduction to Theatre Practice. (2-6). Credit 6.

Stagecraft, stage properties, and make-up. (040204)

231, 232. History of the Theatre. (3-0). Credit 6.

Development of theatre art from the earliest times through the sixteenth century. History of the Theatre—Development of theatre art from the beginning of the seventeenth century through the nineteenth century. (040202)

\*Recommended.

**233. Acting I. (2-2). Credit 3.**

Detailed study of characterization through class assignment of individual roles and group rehearsing of scenes. Survey of styles of acting. Consideration of dialects. Application of class principles in departmental stage production. (040211)

**234. Acting II. (2-2). Credit 3.**

Study and practical experience in problems of creating characterization, with emphasis on developing vocal and physical skill in acting. (040212)

**235. Stagecraft. (2-4). Credit 3.**

General consideration of the art of the theatre as it relates to the stage scenery and light. Practical experience in designing construction of scenery, and lighting for College productions. (040207)

**FOREIGN LANGUAGE DEPARTMENT****Suggested Curriculum****Freshman Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
Major Language 141 .....	4	Major Language 142 .....	4
*Mathematics .....	3	*Mathematics .....	3
History 131 .....	3	History 132 .....	3
†Science 141 .....	4	†Science 142 .....	4
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	<hr/> 19		<hr/> 18

**Sophomore Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231 .....	3	English 232 .....	3
Major Language 231 .....	3	Major Language 232 .....	3
Government 231 .....	3	Government 232 .....	3
†Science 241 .....	4	†Science 242 .....	4
†Second Language 141 .....	4	†Second Language 142 .....	4
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/> 18		<hr/> 18

**FOREIGN LANGUAGE COURSE DESCRIPTIONS****French****141. Beginning French. (3-2). Credit 4.**

This course includes basic grammar drill, pronunciation drill, simple reading, and conversation. (080401)

\*Check senior college catalogue for substitute courses, if any, if desired.

†Science recommended

‡Second language requirement varies with senior colleges. Check senior college catalogue carefully.

**142. Beginning French. (3-2). Credit 4.**

Elementary grammar is completed. Pronunciation, drill, and conversation based on reading are continued. Stress is given to everyday conversational phrases. Prerequisite: French 141. (080401)

**231. Intermediate French. (3-0). Credit 3.**

This course includes grammar review, composition, and reading of French masterpieces, with conversation based on material read. Prerequisites: French 141, 142 or two years of French in an accredited high school. (080402)

**232. Intermediate French. (3-0). Credit 3.**

This course continues the drill on syntax as needed for reading, composition, and conversation. Prerequisite: French 231. (080402)

**German****141. Beginning German. (3-2). Credit 4.**

For those who have had no previous work in German. The essential grammar is taught inductively through conversation. Small classes assure maximum personal attention and expression. Two laboratory hours per week are required for the memorization and presentation of German dialogues by the student. Folk songs are learned. (080501)

**142. Beginning German. (3-2). Credit 4.**

A continuation of Course 141. Prerequisite: 141 or its equivalent. (080501)

**231, 232. Intermediate German. (3-0). Credit 6.**

Special emphasis on conversation, composition and reading; phonographic recordings will be studied, analyzed, and memorized. Modern German writings will be read. Prerequisite: Course 142 or its equivalent. (080502)

**Russian****141, 142. Beginning Russian. (3-2). Credit 8.**

Grammar explanations are held to a minimum, the essential grammar being taught inductively through conversation. The aims are good pronunciation and conversational ability within a limited vocabulary. Two laboratory hours per week are required. Russian 142 is a continuation of Russian 141. (081101)

**231, 232. Intermediate Russian. (3-0). Credit 6.**

Readings of selected texts from Russian writers; composition and conversation on topics of everyday life. Russian 232 is a continuation of Russian 231. (081102)

**Spanish****141. Beginning Spanish. (3-2). Credit 4.**

This course consists chiefly of the study of Spanish grammar and development of vocabulary. Conversation in Spanish is stressed. (081201)

**142. Beginning Spanish. (3-2). Credit 4.**

This course is a continuation of Spanish 141. Simple graded readings dealing principally with life in Spanish-American countries is introduced. Conversations in Spanish is stressed. Prerequisite: Spanish 141. (081201)

**231. Intermediate Spanish. (3-0). Credit 3.**

A review grammar text is used. Continued emphasis is placed on conversation, correct pronunciation, and correct writing. Readings from various Spanish-American authors are studied. Prerequisites: Either Spanish 141, 142 or two years of Spanish in an accredited high school. (081202)

**232. Intermediate Spanish. (3-0). Credit 3.**

This course continues the readings from Spanish-American authors. Grammar, composition, and conversation are emphasized. Prerequisite: Spanish 231 or equivalent. (081202)

**233, 234. Spanish Literature. (3-0). Credit 6.**

Study of trends in Spanish and Spanish-American Literature with collateral reading and discussion. The second semester deals with selections from dramas, novels, and poetry of Spain, Mexico, and South American countries. Prerequisites: Spanish 231, 232 or their equivalent. (081206)

**HOME ECONOMICS DEPARTMENT****Suggested Curriculum for Home Economics Majors****Freshman Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
History 131 .....	3	History 132 .....	3
Home Ec. 131 .....	3	Home Ec. 133 .....	3
Home Ec. 132 .....	3	Home Ec. 134 .....	3
Science 141 .....	4	Science 142 .....	4
Psychology 111 .....	1	Physical Education 112 .....	1
Physical Education 111 .....	1		
	<hr/>		<hr/>
	18		17

**Sophomore Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231 .....	3	English 232 .....	3
Government 231 .....	3	Government 232 .....	3
Home Ec. 231 .....	3	Home Ec. 232 .....	3
Economics 231 .....	3	Economics 232 .....	3
*Elective .....	3	*Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/>		<hr/>
	16		16

\*Student should check senior college catalogue for recommended elective.



## HOME ECONOMICS COURSE DESCRIPTIONS

### 131. Dress Design and Tailoring. (2-3). Credit 3.

Principles of dressmaking and basic tailoring applied to a wool coat or suit. Designing original blouses and dresses. (100102)

### 132. Food Preparation and Nutrition. (2-3). Credit 3.

Students learn to plan, prepare, and serve attractive, nutritious meals for the individual and family groups. A study of the factors related to food selection and preparation, such as cost, availability, time required for preparation, and nutritional value. Laboratory experiences provide opportunities for the students to learn how to operate modern household appliances used in the preparation of food. (100201)

### 133. Advanced Dress Design and Construction. (2-3). Credit 3.

Survey of history of costume; advanced problems in clothing construction, including draping; application of design principles to costume planning and selection. (100105)

### 134. Fundamentals of Food Preparation and Service. (2-3). Credit 3.

Principles underlying the cooking of various foods for family meals. Laboratory experiences in techniques for applying these principles in fitting foods into meal patterns. (100202)

### 231. Clothing Design and Construction. (2-3). Credit 3.

A study of fitting and special fitting problems. Dress design as applied to clothing through pattern designing. (100104)

### 232. Textiles. (2-3). Credit 3.

Fundamental facts concerning fibers. Fabric construction and finishes as applied to the selection of fabrics for clothing and the home. (100103)

### 233. Home Furnishing. (2-3). Credit 3.

Designed to give the student a background of what to look for and plan for in the new or remodeled house. Also to acquaint the student with basic needs in the home furnishings and with solutions to problems of interior decorating, and upholstering; and/or making of accessories, slip-covers, and window treatments. (100303)

### 234. Home Nursing. (2-3). Credit 3.

A course planned to give the student an opportunity to qualify for the Red Cross Certificate in Home Nursing. For majors in home economics. (100403)

## MATHEMATICS DEPARTMENT

### Suggested Curriculum

#### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Mathematics 132 .....	3	Mathematics 134 .....	3
Mathematics 133 .....	3	*Science or	
*Science or		Foreign Language 142 .....	4
Foreign Language 141 .....	4	*Elective .....	3
English 131 .....	3	English 132 .....	3
History 131 .....	3	History 132 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	<hr/> 18		<hr/> 17

#### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Mathematics 231 .....	3	Mathematics 232 .....	3
English 231 .....	3	English 232 .....	3
Government 231 .....	3	Government 232 .....	3
Physics 141 .....	4	Physics 142 .....	4
*Elective .....	3	*Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/> 17		<hr/> 17

A student desiring a more accelerated program in mathematics for the first two years should plan to take mathematics 132 and 133 in the summer session immediately preceding the regular session in which he plans to enroll.

### MATHEMATICS COURSE DESCRIPTIONS\*\*

#### 130. Survey of Fundamentals of Mathematics. (3-0). Credit 3.

Designed for students desiring a review of fundamental operations in mathematics but not expecting to take higher mathematics. This course may not be used as a part of the requirements for a major in mathematics. Review of basic arithmetic, algebra, trigonometry, and logarithms. (140101)

#### 131. College Algebra. (3-0). Credit 3.

An axiomatic development of the fundamental principles of algebra. Includes a brief review of intermediate algebra; variation, set theory; systems of equations; determinants; binomial theorem; theory of equations; exponential and logarithmic functions; inequalities; progressions; probability. 140201) (No credit for mathematics and engineering majors.)

\*Check senior college catalogue for required or recommended course.

\*\*Business mathematics courses are described under Business Administration.

**132. College Algebra. (3-0). Credit 3.**

Designed for mathematics, science, and engineering majors. Applications of the scientific and physical nature. The real number system as a field; variation; quadratic equations; systems of equations; theory of equations; determinants; introduction to matrices; probability; progressions; exponential and logarithmic functions; mathematical induction; systems of equations; binomial theorem. (140607)

**133. Trigonometry. (3-0). Credit 3.**

Trigonometric functions and formulae theory; use of trigonometric tables; identities; solution of right and oblique triangles; inverse trigonometric functions; complex numbers. (140106)

**134. Analytic Geometry. (3-0). Credit 3.**

Introductory concepts; the straight line; the circle; conic sections; transformation of coordinates; polar coordinates; parametric equations. (140204) *Should have 133 first.*

**135. Finite Mathematics. (3-0). Credit 3.**

Symbolic logic; theory of sets; probability and statistics; mathematical induction. (140502)

**136. Statistics. (3-0). Credit 3.**

Collection and tabulation of data; bar charts; graphs; sampling; averages; dispersion; correlation; index numbers; normal curve; probability; applications to various fields. (140501)

**231. Differential Calculus. (3-0). Credit 3.**

A first course in differential calculus. (140301)

**232. Integral Calculus. (3-0). Credit 3.**

A first course in integral calculus. (140301)

**233. Advanced Calculus. (3-0). Credit 3.**

A further study of limits and functions; sequences and series; elementary differential equations; partial derivatives; multiple integrals; surface integrals; derivatives of a vector. (140302)

**234. Differential Equations. (3-0). Credit 3.**

Fourier series, linear equations, solution by Laplace transforms and by series, application. (140402)

**131T. Basic Technical Mathematics. (3-0). Credit 3.**

The slide rule, products and factors, algebraic fractions, fractional equations, simultaneous equations, exponents and radicals, the operator J, quadratic equations. (190105)

**132T. Advanced Technical Mathematics. (3-0). Credit 3.**

Logarithms, angles, trigonometric functions, solution of right triangles, plane vectors, and vector algebra. (190107)

**PHYSICAL AND HEALTH EDUCATION DEPARTMENT**

Four semesters of Physical Education activity courses are required for graduation from Central Texas College. Most senior colleges also have this same requirement. Therefore, stu-

dents will be required to enroll for one Physical Education activity class each semester for four semesters. The same activity may not be taken more than twice.

## Suggested Curriculum for Physical and Health Education Majors

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
History 131 .....	3	History 132 .....	3
Biology 141 .....	4	Biology 142 .....	4
*Math 131 .....	3	*Math 132 .....	3
Physical Education 131 .....	3	Physical Education 132 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	18		17

### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231 .....	3	English 232 .....	3
Government 231 .....	3	Government 232 .....	3
Psychology 231 .....	3	Sociology 231 .....	3
†Physical Education Course ..	3	†Physical Education Course ....	3
Elective .....	3	Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	16		16

## PHYSICAL AND HEALTH EDUCATION COURSE DESCRIPTIONS

(Courses from which four hours of required  
Physical Education may be selected)

Subject	Catalogue Course No.	Title of Course
P E	110 (FBB)	Football and Basketball (090301)
P E	111 (VSB)	Volleyball and Softball (090301)
P E	112 (ABM)	Archery and Badminton (090301)
P E	113 (BB)	Beginning Bowling (090301)
P E	114 (FD)	Folk Dance (090306)
P E	115 (BD)	Ballroom Dance (090306)
P E	116 (BS)	Beginning Swimming (090305)
P E	117 (BT)	Beginning Tennis (090301)
P E	118 (BG)	Beginning Golf (090301)
P E	119 (S)	Soccer (090301)

\*May substitute a foreign language for math.

†Check senior college catalogue for variation in requirements.

Subject	Catalogue Course No.	Title of Course
P E	210 (AB)	Advanced Bowling (090302)
P E	211 (AS)	Advanced Swimming (090305)
P E	212 (AT)	Advanced Tennis (090302)
P E	213 (AG)	Advanced Golf (090302)
P E	214 (BTT)	Badminton and Table Tennis (090302)
P E	215 (FD)	Figure Development (090307)
P E	216 (FM)	Fundamentals of Movement (090303)
P E	217 (MD)	Modern Dance (090306)
P E	218 (PC)	Men's Physical Conditioning (090307)
P E	219 (VA)	Varsity Athletics (090305)

**131. Introduction to Physical Education. (3-0). Credit 3.**

A course designed to orient the student in the field of health, physical education, and recreation through presentation of the scope and organization of professional activities, vocational opportunities offered in the field, and essential qualifications of members of the profession. (090101)

**132. Personal Hygiene. (3-0). Credit 3.**

A fundamental course in principles and problems of healthful living as they apply today. (090201)

**231. Community Health. (3-0). Credit 3.**

The principles of personal health—nutrition, mental health, stimulants and narcotics, exercise, sleep and rest. Also, community health—sanitation, community services, public health agencies. (090202)

**232. Kinesiology. (3-0). Credit 3.**

This is a scientific course designed to provide a technical knowledge of human anatomy and motor movements, body mechanics and recognition of deviation from normal body alignments in individuals. (090206)

**233. Health Education for Elementary Teachers. (3-0). Credit 3.**

This course is designed to meet the state certification requirements. Its purpose is to point up the role of the elementary teacher in the total school health program with special emphasis placed upon the area of instruction and health services. Instructional units will be developed, methods and materials will be explored, and problems connected with the teacher's association with the school health program will be discussed. (090107)

**234. Health Education for Secondary Teachers. (3-0). Credit 3.**

Basic principles of health education, methods of teaching health, and the administration of health programs in the junior and senior high school. (090109)

**235. Safety and First Aid. (2-3). Credit 3.**

Health knowledge and practice in regard to individual and

group welfare; personal hygiene; community health problems; communicable disease control and health organizations. Instruction in American National Red Cross first aid methods for emergency treatments of injuries and sudden illness. Advanced certificate required for completion of course. (090203)

## NATURAL SCIENCES DEPARTMENT (Biology and Chemistry)

### Suggested Curriculum for Biology Majors

#### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Biology 141 .....	4	Biology 142 .....	4
Chemistry 141 .....	4	Chemistry 142 .....	4
History 131 .....	3	History 132 .....	3
English 131 .....	3	English 132 .....	3
Mathematics 132 .....	3	Mathematics 133 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	19		18

#### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Biology 241 .....	4	Biology 242 .....	4
English 231 .....	3	English 232 .....	3
Government 231 .....	3	Government 232 .....	3
Elective .....	3	Elective .....	3
*Science .....	3	*Science .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	17		17

### BIOLOGY COURSE DESCRIPTIONS

#### 141. General Zoology. (3-3). Credit 4.

Fundamental principles of living animals with emphasis upon man; includes structure, physiology, taxonomy, development, heredity, and natural history of animals; laboratory includes dissection of invertebrates and vertebrates. (160101)

#### 142. General Botany. (3-3). Credit 4.

Fundamental principles of plant life with emphasis upon flowering plants; course includes study of structure, taxonomy, physiology, adaptation, ecology, genetics and life histories of plants; laboratory includes study and dissection of representative plant groups. (160101)

#### 143. Anatomy and Physiology. (3-3). Credit 4.

Human anatomy and physiology. Laboratory includes experiments in vertebrate physiology and the dissection of a mammal. (160104)

\*Check with senior college catalogue as requirements vary.

**132. Fundamentals of Microbiology. (2-3). Credit 3.**

Fundamental principles of microbiology; includes study of morphology, physiology, classification and their relations to soil, food, water, disease and problems of immunity; special consideration is given to personal and community health. (160107)

**133. Taxonomy of Flowering Plants. (2-3). Credit 3.**

Fundamental training in the use of keys and in identification of flowering plants, family characteristics and relationships, and other phases of plant science. Prerequisite: Biology 142. (160114)

**241. Invertebrate Zoology. (3-3). Credit 4.**

Classification, comparison, anatomy and physiology of invertebrates; specimens from the more important invertebrate phyla studied in laboratory; field trips for collection of native invertebrates. Prerequisite: Biology 141. (160112)

**242. Vertebrate Zoology. (3-3). Credit 4.**

Structure, development, physiology and natural history of vertebrate animals; emphasis will be placed on native wildlife; field trips will be included. Prerequisite: Biology 141. (160108)

**233. Fundamental Plant Morphology. (2-3). Credit 3.**

Structural, reproductive and taxonomic features of representatives of major plant groups, with particular attention to groups not covered in general botany. Prerequisite: Biology 142. (160102)

**Suggested Curriculum for Chemistry Majors****Freshman Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Chemistry 141 .....	4	Chemistry 142 .....	4
*Science .....	4	*Science .....	4
History 131 .....	3	History 132 .....	3
Mathematics 132 .....	3	Mathematics 133 .....	3
English 131 .....	3	English 132 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	<hr/> 19		<hr/> 18

**Sophomore Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Chemistry 241 .....	4	Chemistry 242 .....	4
Science Elective .....	4	Science Elective .....	4
Government 231 .....	3	Government 232 .....	3
English 231 .....	3	Chemistry 243 .....	4
Elective .....	3	Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/> 18		<hr/> 19

\*Check senior college catalogue as requirements vary.

## CHEMISTRY COURSE DESCRIPTIONS

### 121. Chemical Calculations. (2-0). Credit 2.

Designed for chemistry and chemical engineering majors.  
Prerequisite: Chemistry 141. (160205)

### 141, 142. General Chemistry. (3-4). Credit 8.

Fundamental laws and theories of chemical activity. Practical application of chemical processes involving non-metals and metals. (160202)

### 241, 242. Organic Chemistry. (3-4). Credit 8.

The chemistry of the compounds of carbon. A study of general principles and their application to various industrial processes. (160203)

### 243. Quantitative Analysis. (3-4). Credit 4.

An introduction to the methods of exact analysis. Special attention to stoichiometry. (160204)

## PHYSICAL SCIENCES DEPARTMENT

### (Geology and Physics)

#### Suggested Curriculum for Geology Majors\*

##### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Geology 141 .....	4	Geology 142 .....	4
Mathematics 132 .....	3	Mathematics 133 .....	3
History 131 .....	3	History 132 .....	3
English 131 .....	3	English 132 .....	3
Chemistry 141 .....	4	Chemistry 142 .....	4
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	19		18

##### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Mathematics 232 .....	3	Mathematics 233 .....	3
Chemistry 241 .....	4	Chemistry 242 .....	4
Government 231 .....	3	Government 232 .....	3
Mathematics 134 .....	3	Science Elective .....	4
English 231 .....	3	English 232 .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	17		18

## GEOLOGY COURSE DESCRIPTIONS

### 141. Physical Geology. (3-3). Credit 4.

Physical and introduction to historical geology. A foundation course for all advanced work in geology. Required of all students majoring in geology. (160501)

\*Check senior college catalogue for specific courses. Variations are considerable.



**142. Historical Geology. (3-3). Credit 4.**

Principles of stratigraphy and paleontology, the physical and organic record of the earth's history, hypotheses of the earth's origin. (160505)

**241. Mineralogy. (2-6). Credit 4.**

Geometric and chemical crystallography. Classification and methods of identification of minerals; blowpipe analysis, formation, occurrence, properties of minerals. Megascopic identification and classification of rocks. (160502)

**242. Invertebrate Paleontology. (3-3). Credit 4.**

The classification, morphology and identification of invertebrate fossils. Field trip required. (160504)

**EARTH AND SPACE SCIENCE COURSE DESCRIPTIONS****141, 142. Nature of the Earth and Universe. (3-2). Credit 8.**

This course deals with the nature of the earth and the universe as revealed in geology, astronomy, meteorology, and other closely related physical sciences. Stress is placed upon the appraisal by the student of the significance of these sciences to man's environment of material and energy resources in a space-age universe. (160405)

**131. Survey of Astronomy. (3-0). Credit 3.**

The main features of the known universe and the principles involved in their discovery. A non-material survey recommended for all students. (160601)

**132. Descriptive Astronomy. (3-0). Credit 3.**

A survey of facts and an introduction to important astronomical theories. The solar system, stars, nebulae, and star systems. Double stars, variable stars, star clusters and nebulae. Stellar theories. (160602)

**Suggested Curriculum for Physics Majors****Freshman Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Physics 141 .....	4	Physics 142 .....	4
Mathematics 132 .....	3	Mathematics 134 .....	3
Mathematics 133 .....	3	Mathematics 231 .....	3
*Science .....	4	*Science .....	4
English 131 .....	3	English 132 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	<hr/>		<hr/>
	19		18

\*Check senior college catalogue for recommended course due to variations in requirements.

## Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Physics 241 .....	4	Physics 242 .....	4
Mathematics 232 .....	3	Mathematics 233 .....	3
Government 231 .....	3	Government 232 .....	3
History 131 .....	3	History 132 .....	3
*Science .....	4	*Science .....	4
Physical Education 212 .....	1	Physical Education 112 .....	1
<hr/>		<hr/>	
18		18	

## PHYSICS COURSE DESCRIPTIONS

**140. Survey of Physics. (3-3). Credit 4.**

A survey of the fundamental principles of physics designed to acquaint students with the basic concepts of physics, contemporary physics, and modern thinking. Prerequisite: Math 132 or registration therein. (160301)

**141. College Physics. (3-3). Credit 4.**

Fundamentals of classical mechanics, heat, and sound. This course is designed primarily for students who plan to major in medicine, dentistry, veterinary medicine, architecture, pharmacy, and for all other students needing a two-semester course in physics. Prerequisite: Math 133 or registration therein. (160302)

**142. College Physics. (3-3). Credit 4.**

A continuation of Physics 141. Fundamentals of classical electricity, magnetism, light, atomic and nuclear physics. Prerequisite: Physics 141. (160302)

**241. Engineering Physics. (3-3). Credit 4.**

Mechanics, heat, wave-motion, and optics for students of engineering and physical sciences. Prerequisite: Math 231 or registration therein. (160304)

**242. Engineering Physics. (3-3). Credit 4.**

A continuation of Physics 241. Electricity, light, magnetism, sound, and modern physics. Prerequisites: Physics 241 and Math 232 or registration therein. (160305)

**243. Modern Physics. (3-3). Credit 4.**

Atomic, nuclear, and solid-state physics. Prerequisites: Math 232 and Physics 242. (160310)

## SOCIAL SCIENCES DEPARTMENT

**Suggested Curriculum for Social Science Majors will be general Liberal Arts for Freshman and Sophomore years.**

\*Check senior college catalogue for recommended course due to variations in requirements.

## Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
History 131 .....	3	History 132 .....	3
Foreign Language 141 .....	4	Foreign Language 142 .....	4
Science 141 .....	4	Science 142 .....	4
Mathematics 131 .....	3	Mathematics 133 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	<hr/> 19		<hr/> 18

## Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231 .....	3	English 232 .....	3
Government 231 .....	3	Government 232 .....	3
Foreign Language 231 .....	3	Foreign Language 232 .....	3
*Social Science .....	3	*Social Science .....	3
Elective .....	3	Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/> 16		<hr/> 16

## SOCIAL SCIENCE COURSE DESCRIPTIONS

## Anthropology

**231. Physical Anthropology. (3-0). Credit 3.**

Principles of Physical Anthropology, human evolution, race, heredity, the organic basis of culture, cultural history through the Paleolithic stage. (180101)

**232. Cultural Anthropology. (3-0). Credit 3.**

Principles of Cultural Anthropology, cultural history from the Mesolithic stage through civilization, culture and social organization in preliterate and literate societies, impact of western culture on preliterate societies. (180103)

## Bible

**132. New Testament. (3-0). Credit 3.**

A foundation course in the history, literature, and teachings of the New Testament. The four Gospels and Acts will be studied in detail. (180201)

**133. Old Testament. (3-0). Credit 3.**

A foundation course in the history, literature, and teachings of the Old Testament, with principal emphasis given to study of the historical books. (180202)

**231. Life of Christ. (3-0). Credit 3.**

The life and teachings of Jesus with attention given to the

---

\*Social Science course should be related to major or minor if possible.

economic, social, political, and religious conditions of the world of His day. (180203)

**232. Writings of Paul. (3-0). Credit 3.**

The apostle Paul's life and teachings, as revealed in the Book of Acts and the Pauline Epistles. (180204)

**233. Acts of the Apostles. (3-0). Credit 3.**

A study of the expansion of Christian beliefs, practices, and fellowships from Palestine to outlying parts of the Roman Empire; a personality study of Peter, John, Paul, and other apostles. (180205)

**234. The Prophets. (3-0). Credit 3.**

The Hebrew prophets, their place in history, and their message. (180206)

### **Geography**

**231. Elements of Physical Geography. (3-0). Credit 3.**

The basic physical elements of geography; maps, landforms, climate, natural resources. (180401)

**232. Geography of World Cultures. (3-0). Credit 3.**

The temporal and spatial geography of world cultures. Foundation of world cultures. (180401)

### **Government**

**231, 232. State and Federal Government. (3-0). Credit 6.**

Fulfills the legislative requirement of six hours of American Government. A functional study of the American constitutional and governmental system, federal, state, and local. Special attention to Texas. The origins and development of the American governmental system; federal-state and interstate relations; lesser units of government; the individual as a citizen, person, and voter; political parties. Legislative, executive, and judicial functions in federal and state governments; financing governmental activities; foreign relations and national defense; governmental services and functions. (180501)

### **History**

**131, 132. History of the United States. (3-0). Credit 6.**

English colonization; the Revolution; adaptation of the Constitution; growth of nationalism; cotton and the slavery problem; war for Southern independence. Reconstruction; new social and industrial problems; rise of the progressive movement; United States emergence as a world power; World War I; reaction and the New Deal; World War II; contemporary America. (180604)

**133, 134. History of Europe. (3-0). Credit 6.**

A survey of the development of European civilization from the decline of the Roman Empire to the Renaissance. Major topics include the Graeco-Roman heritage, the barbarian migrations, the growth and development of the church, the rise

of capitalism, medieval society, and the origin of nationalism in Europe. The history of western Europe from the Renaissance to the present. The Age of Reason and the French Revolution, the Napoleonic Wars, the growth of nationalism and democracy in the nineteenth century, the causes and consequences of the two world wars and the rise of dictatorship. (180603)

**135, 136. History of England. (3-0). Credit 6.**

British, Saxon, and Norman origins; national development; struggles between church and state; crown and nobles; nobles and commons; development of parliament. (180605)

### **Philosophy**

**231. Introduction to Philosophy. (3-0). Credit 3.**

A general introduction to critical and reflective thinking as applied to the basic problems of existence and the meaning of human life and institutions; study of methods and types of evidence utilized by authority, intuition, revelation, reason and scientific methods, and a study of the nature of philosophy, including its relation to religion, science, and art. (180701)

**232. Introduction to Ethics. (3-0). Credit 3.**

Study of basic principles of the normal life, with critical examination of traditional and current theories of the nature of goodness, happiness, duty, and freedom. (180702)

**233. Logic. (3-0). Credit 3.**

Nature and methods of correct reasoning, deductive proof; inductive proof; fallacies; arguments. (180704)

**234. Comparative World Religions. (3-0). Credit 3.**

A survey course dealing with the origins, tenets, and development of the major world religions. Deductive method used to understand religion as a phenomenon in man's life. Discussion of Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, and Islam. (180212)

### **Psychology**

**111. Psychology of Personal and Social Development. (1-0). Credit 1.**

Designed to orient the student to college life and to help him to understand his personal problems, such as separation from family, study habits, use of time, vocational choices. (050101)

**231. Introduction to Psychology. (3-0). Credit 3.**

Basic principles of human experience and behavior involving biological, environmental, and sociological studies. An overview course including an introduction to the major studies of psychology. Recommended for students of sophomore standing. (180801)

**232. Personality Adjustment. (3-0). Credit 3.**

A study of psychological concepts and principles related to healthy personality and social adjustment. Prerequisite: Psychology 231. (180803)

**233. Child Growth and Development. (3-3). Credit 3.**

The purpose of this course is to develop an understanding of children and to engender a real interest in them. Consideration is given the human organism as it develops physically, mentally, emotionally, and socially, as well as problems of adjustment. Lab requirements consist of observation and study of preschool and elementary age school children. (050105)

**234. Industrial Psychology. (3-0). Credit 3.**

The psychological factors operating in business and industry. Employment procedures, personnel testing, attitude analysis, motivation, morals, advertising, and consumer market opinion and motivation research. (180807)

### Sociology

**231. Introduction to Sociology. (3-0). Credit 3.**

The study of human society; human behavior and personality as a product of group life; community organization; social change and current social problems. (180901)

**232. Contemporary Social Problems. (3-0). Credit 3.**

Identification and analysis of contemporary social problems, development of criteria for evaluating programs for social betterment. (180902)

**233. Criminology. (3-0). Credit 3.**

Causes and manifestations of delinquency; case studies of criminals and their social milieu; the offender and agencies of his adjustment; analysis and evaluation of penal methods. (180811)

**234. Social Institutions and Processes. (3-0). Credit 3.**

Sociological concepts and principles that are basic to an understanding of the complexity of modern society. Students, through firsthand observation and course materials, are familiarized with social institutions, class structures, and social processes which produce social organization and disorganization. Major social institutions are viewed from the standpoint of social structure and social processes, and their future roles in society's operation and influence upon the individual and groups. (180904)

# PRE-PROFESSIONAL PROGRAMS

## PRE-MEDICAL PRE-DENTAL\*

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
Biology 141 .....	4	Biology 142 .....	4
Chemistry 141 .....	4	Chemistry 142 .....	4
History 131 .....	3	History 132 .....	3
Mathematics 132 .....	3	Mathematics 133 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	<hr/>		<hr/>
	19		18

### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231 .....	3	English 232 .....	3
Biology 241 .....	4	Biology 242 .....	4
Chemistry 241 .....	4	Chemistry 242 .....	4
Government 231 .....	3	Government 232 .....	3
Physics 141 .....	4	Physics 142 .....	4
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/>		<hr/>
	19		19

## PRE-LAW\*\*

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
Mathematics 132 .....	3	Mathematics 133 .....	3
Foreign Language 141 .....	4	Foreign Language 142 .....	4
Science 141 .....	4	Science 142 .....	4
History 133 .....	3	History 134 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	<hr/>		<hr/>
	19		18

### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231 .....	3	English 232 .....	3
Foreign Language 231 .....	3	Foreign Language 232 .....	3
Science 241 .....	4	Science 242 .....	4
Government 231 .....	3	Government 232 .....	3
History 131 .....	3	History 132 .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/>		<hr/>
	17		17

\*Check university catalogue of specific medical or dental school since slight variations exist.

\*\*Check university catalogue of specific law school since variations exist.

## PRE-VETERINARY

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
Biology 141 .....	4	Biology 142 .....	4
Chemistry 141 .....	4	Chemistry 142 .....	4
Mathematics 132 .....	3	Mathematics 133 .....	3
History 131 .....	3	History 132 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	<hr/>		<hr/>
	19		18

### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231 .....	3	English 232 .....	3
Biology 241 .....	4	Biology 242 .....	4
Chemistry 241 .....	4	Chemistry 242 .....	4
Physics 141 .....	4	Physics 142 .....	4
Government 231 .....	3	Government 232 .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/>		<hr/>
	19		19

## PRE-NURSING\*

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
Biology 141 .....	4	Biology 142 .....	4
Chemistry 141 .....	4	Chemistry 142 .....	4
Sociology 231 .....	3	Psychology 231 .....	3
Psychology 111 .....	1	Microbiology 132 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
	<hr/>		<hr/>
	16		18

\*For a four year nursing program see the senior college catalogue of your choice.



## DIVISION OF ENGINEERING AND TECHNOLOGY

Students who complete a prescribed two year curriculum in one of the following programs are eligible to receive the Associate in Applied Science Degree.

The following programs of study are designed to prepare students for jobs in industry by giving them satisfactory technical knowledge and training for a better understanding of job skills and civic responsibilities.

### AIR CONDITIONING TECHNOLOGY DEPARTMENT

#### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Approved English 131 .....	3	Approved English 132 .....	3
History 131 .....	3	History 132 .....	3
Basic Technical Math 131T ....	3	Advanced Technical Math 132T .	3
Fundamentals of Air Conditioning 141 .....	4	Survey of Air Conditioning 142 .	4
Basic Electricity 141 .....	4	Blue Print Reading 133 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	19		17

#### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Central System Air Conditioning 241 .....	4	Engineering Drawing 132 .....	3
Control Theory and Applications 242 .....	4	Residential and Commercial Air Conditioning 243 .....	4
Engineering Graphics 131 .....	3	Air Conditioning Analysis 234 ..	3
Elective .....	3	Industrial Psychology 234 .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	18		17

### COURSE DESCRIPTIONS

#### 141. Fundamentals of Air Conditioning. (3-3). Credit 4.

Summer-winter air conditioning, psychrometric properties of air, heat load calculations. Residential, commercial, and industrial equipment applications. (190301)

**142. Survey of Air Conditioning. (3-3). Credit 4.**

Summer-winter air conditioning. Psychrometric properties of air, air distribution, heat load calculations, selection and placement of equipment for residential and small commercial applications. (190302)

**241. Central System Air Conditioning. (3-3). Credit 4.**

Advanced psychrometrics, air handling, component selection for the larger field-assembled systems. Capacity balance and control problems. Integrated experiments in instrumentation and cooling capacities. (190303)

**242. Control Theory and Applications. (3-3). Credit 4.**

Application of controls and control circuitry related to refrigeration and air conditioning. Circuit design in electric, electronic, and pneumatic systems. (190304)

**243. Residential and Commercial Air Conditioning. (3-3). Credit 4.**

Equipment selection and system design for warm air, hot water, and steam heating. Direct expansion and chilled water cooling for separate or integrated systems. Related experiments. (190305)

**234. Air Conditioning Analysis. (1-3). Credit 3.**

Writing specifications for summer-winter air conditioning systems. Equipment selection for air distribution, installation planning, and layout procedures emphasized. (190308)

**AUTOMOTIVE TECHNOLOGY DEPARTMENT****Freshman Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
History 131 .....	3	History 132 .....	3
Approved English .....	3	Approved English .....	3
Introduction to Automotive Engines 141 .....	4	Fuels and Combustion 142 .....	4
Basic Technical Math 131T ....	3	Automotive Electrical Systems 143 .....	4
Basic Electricity 141 .....	4	Mechanical Power Transmission 144 .....	4
Psychology 111 .....	1	Physical Education 112 .....	1
Physical Education 111 .....	1		
	<hr/> 19		<hr/> 19

**Sophomore Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Report Writing 133 .....	3	Advanced Theory and Design 244 .....	4
Fundamentals of Air Conditioning 141 .....	4	Automotive Service and Repair 243 .....	4
Motor Tune-Up Analyzing 242..	4	Industrial Psychology 234 .....	3
Introduction to Business 131 ....	3	Approved Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/> 18		<hr/> 18

## COURSE DESCRIPTIONS

**141. Introduction to Automotive Engines. (2-4). Credit 4.**

A study of the courses and transmission of power with emphasis on internal combustion engines, carburetion and transmission systems, and governor controls. (190701)

**142. Fuels and Combustion. (2-4). Credit 4.**

Analysis of engine fuels, combustion reaction equations, heat distribution and transfer, engine efficiencies, engine cycles, and steam and gas turbines, (190702)

**143. Automotive Electrical System. (2-4). Credit 4.**

A study of automotive electricity and the proper service of electrical systems, including batteries, generators, starters, voltage regulators, modern engine tune-up, and the use of test equipment.

**144. Mechanical Power Transmission. (2-4). Credit 4.**

Belting, pulleys, bearing design, clutches, shafting, gears, velocities and speed ratios, load transmission, and equipment design. (190703)

**241. Diesel Engines. (2-4). Credit 4.**

Theory, operation, repair techniques and maintenance of diesel engines, including 12 and 24 volt starting systems, heavy duty regulators, fuel transfer pumps, filters, and fuel injectors.

**242. Motor Tune-Up and Analyzing. (2-4). Credit 4.**

Carburetor cleaning, distributor testing and timing, spark plug cleaning and testing, study of the ignition and fuel system. (190708)

**243. Automotive Service and Repair. (2-4). Credit 4.**

Includes study and practice related to power train, suspension system, steering and braking, air conditioning, diagnosis of engine troubles, fuel and electrical troubles, and major repair.

**244. Advanced Theory and Design. (2-4). Credit 4.**

Properties of fuels, chemistry of combustion, testing and performance power curves. Design of major engine parts. (190709)

## CAREER PILOT TECHNOLOGY DEPARTMENT

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
History 131 .....	3	History 132 .....	3
English 131 .....	3	English 132 .....	3
Aircraft Science 131 .....	3	Propulsion Systems 132 .....	3
Pre-Flight and Air Navigation 133 .....	3	Basic Flight 130 .....	3
Flight Instruction 111 .....	1	Aerophysics 135 .....	3
Basic Tech. Math 131T .....	3	Physical Education 112 .....	1
Physical Education 111 .....	1		<hr/>
Psychology 111 .....	1		16
	<hr/>		
	18		

### Summer Semester

Subject	Hours
Intermediate Flight 134 .....	3
Advanced Air Navigation 230 ..	3
	<hr/>
	6

### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Aerodynamics 231 .....	3	Air Transportation 233 .....	3
Meteorology 232 .....	3	Radio Aids and Communication 237 .....	3
Intermediate Flight 234 .....	3	Advanced Flight 235 .....	3
Approved Elective .....	3	Advanced Flight Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/>		<hr/>
	16		16

## COURSE DESCRIPTIONS

### 111. Flight Instruction. (Solo). Credit 1.

A specific introduction to flight through actual flying experience in modern, safe, fully equipped aircraft. Sixteen hours of instruction is provided of which ten hours is spent in dual flight and six hours in oral instruction and briefing. The program is more than sufficient to qualify a student pilot for solo flight. This course is designed for those who wish to begin training toward qualifying for a Federal Aviation Agency Private Pilot Certificate; also for the Career Pilot Technology students who merely desire to achieve the fundamental, practical experience of flight and first-hand knowledge of aircraft operation. Prerequisite: Appropriate FAA Physical Examination (Class I Airline, Class II Commercial, Class III Private).

### 130. Basic Flight. (Private Pilot). Credit 3.

This course is designed for completion of the Private Pilot Certificate; it exceeds the minimum flight hours necessary to satisfy the Federal Aviation Agency requirements. A total of

fifty-five hours of instruction is provided, including fifteen hours of dual flight, twenty-five hours of solo flight, and fifteen hours of oral instruction and briefing.

The student should also enroll in 133, Pre-Flight, which is the Private Pilot Ground School, or show evidence of having successfully passed the Federal Aviation Agency written examination for the Private Pilot Certificate.

✓131. **Aircraft Science.** (3-0). Credit 3.

This course serves as an introduction to the study of several basic sciences in the aeronautical field, as applied to their theoretical and practice use in aircraft construction and design. (190201)

132. **Propulsion Systems.** (3-0). Credit 3.

This course introduces the student to the actual propulsion hardware. Typical operational type power plants are available for study. (190202)

✓133. **Pre-Flight and Air Navigation.** (3-0). Credit 3.

The principles of flight, basics of air traffic control, weather facts, navigational procedure and airplane operation as are pertinent for the Private Pilot, upon successful completion of this course, the student has sufficient knowledge to pass the Federal Aviation Agency written examination for the Private Pilot Certificate, which constitutes the final examination. Prerequisite: None.

134. **Intermediate Flight. (Commercial Pilot).** Credit 3.

This course is the first half of two phases of flight training in preparation for the Federal Aviation Agency Commercial Pilot Certificate. A total of seventy-five hours of instruction is provided, including fifteen hours of dual flight, forty hours of solo flight and twenty hours of oral instruction and briefing. Prerequisite: Basic Flight.

135. **Aerophysics.** (3-0). Credit 3.

Introduction to physics, physical terms, the basis for physical laws in practical application to aeronautics. Course of study includes laws of motion, gas laws, electromagnetism, basic principles of electrical circuits, hydraulics and pneumatics. Prerequisite: None.

230. **Advanced Air Navigation.** (3-0). Credit 3.

This course covers Air Traffic Control Procedures, FAA Regulations pertaining to Commercial Pilot and IFR Flight Rules, aviation weather and advanced navigational procedures. Advanced flight maneuvers, low altitude enroute charts, approach plates, VOR procedures, Instrument Landing System (ILS) and Ground Controlled approach procedures. Also, the Flight Information Manual. Prerequisite: CP 133.

✓231. **Aerodynamics.** (3-0). Credit 3.

This course covers the physical properties of air, airflow, standard atmosphere, forces on solids moving through air, lift, drag, planeform, air foil selection, and performance factors. (190207)

**232. Meteorology. (3-0). Credit 3.**

This course aims to present concisely and systematically the science of meteorology in its present state of development. The primary purpose is to set forth the facts and principles concerning the behavior and responses of the atmosphere. (190210)

**233. Air Transportation. (3-0). Credit 3.**

The development and present status of air transportation, federal legislation, characteristics and classification of air carriers; the organization and functions of the Federal Aviation Agency and the Civil Aeronautics Board is reviewed. Prerequisite: None.

**234. Intermediate Flight. (Commercial Pilot). Credit 3.**

A continuation of 134. The second half of two phases of flight training leading to the successful completion of the Federal Aviation Agency Commercial Pilot Certificate. A total of seventy-five hours of instruction is provided including fifteen hours of dual flight, forty hours of solo flight and twenty hours of oral instruction and briefing. Prerequisite: 134 or equivalent flight experience as determined by the instructor.

**235. Advanced Flight. (Instrument Rating). Credit 3.**

The necessary instruction to qualify for the Federal Aviation Agency Instrument Pilot Rating. A total of forty-five hours of instruction is provided, including thirty-five hours of dual flight and ten hours of oral instruction and briefing. Prerequisite: 130, or a Private Pilot Certificate; or 234, or a Commercial Pilot Certificate.

**236. Advanced Flight. (Multi-Engine Pilot). Credit 3.**

This course of flight training leads to the Federal Aviation Agency Multi-Engine Pilot Rating. All flying is given in modern twin-engine aircraft and is designed to give the advanced pilot a greater depth of aircraft experience. A total of twenty hours of instruction is provided, including ten hours of dual flight and ten hours of oral instruction and briefing. Prerequisite: 130, or a Private Pilot Certificate; or 234, or a Commercial Pilot Certificate.

**237. Radio Aids and Communications. (3-0). Credit 3.**

Basic radio fundamentals as used by the pilot. A description and practical use of various radio aids to safe aerial navigation, including Very High Frequency Omni Direction Range (VOR), Instrument Landing System (ILS), Direction Finding (DF) and others. Charts and approach plates as adapted to radio navigation including the use of the Flight Information Manual and the Airman's Guide. Prerequisite: Instructor's permission.

**238. Advanced Flight. (Instructor Rating). Credit 3.**

This flight course prepares the experienced pilot for the FAA Certified Flight Instructor Certificate for airplane. Includes ten hours of dual flight and twenty-five hours of oral instruction and briefing. Prerequisite: Commercial Pilot Certificate or qualifications for receiving this certificate.

# DRAFTING AND DESIGN TECHNOLOGY DEPARTMENT

## Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
History 131 .....	3	History 132 .....	3
English 131 .....	3	English 132 .....	3
Basic Technical Math 131T ....	3	Advanced Technical Math 132T 3	
Engineering Graphics 131 ....	3	Engineering Drawing 132 .....	3
Physics 141 .....	4	Descriptive Geometry 132 .....	3
Psychology 111 .....	1	Physical Education 112 .....	1
Physical Education 111 .....	1		
	18		16

## Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Engineering Drawing 143 ....	4	Structural Drafting 244 .....	4
Architectural Drafting 242 ....	4	Topographical Drawing 245 ....	4
Analytic Geometry 134 .....	3	Civil Engineering	
Strength of Materials 244 .....	4	Drafting 246 .....	4
Physical Education 211 .....	1	Industrial Psychology 234 ....	3
	19	Physical Education 212 .....	1
			19

## DRAFTING AND DESIGN TECHNOLOGY COURSE DESCRIPTIONS

### 131. Engineering Graphics. (1-6). Credit 3.

Freehand and instrument drawing, dimensioning, fastening, pictorial methods, charts and graphs, projection drawings, geometry of graphical construction, graphical design. Required for beginning engineering students. (060806)

### 132. Engineering Drawing. (3-3). Credit 3.

Continued training in the use of auxiliary views, sections and conventions, intersections and developments, dimensions, notes, limits and precision; screw threads, etc. (060806)

### 133. Blue Print Reading. (2-3). Credit 3.

Principles of design layout, blue print reading, elementary estimating procedures, and an investigation of the standards required in the various industries. (190807)

### 143. Engineering Drawing. (3-3). Credit 4.

Drawing and manufacturing processes; training in producing various kinds of working drawings; making charts, graphs and diagrams; commercial practices, and economies; and the use of standard parts, sizes, symbols and abbreviations. (060805)

### 242. Architectural Drafting. (3-3). Credit 4.

A study of the preparation of architectural plans; elevations; sections; site plans; various building details; room finish, door, and window schedules; and structural drawings. (190803)

### 243. Electrical Drafting. (3-3). Credit 4.

A study of layout and preparation of finished electrical drawings, stressing modern representation used for pictorial drawings, wiring and connection diagrams, clock diagrams, architectural drawings, control circuits, and schematic diagrams. Stress is placed on accepted practices and symbols in Engineering Offices. Some review of lettering and mechanical drawing principles. (190806)

**244. Structural Drafting. (3-3). Credit 4.**

A study of A.I.S.C. specifications and standards, structural theory and data, designing and detailing structural members and connections. Design and development of details and specifications for light industrial structures to include structural steel, pipe, and reinforced concrete rods. (190801)

**245. Topographical Drawing. (3-3). Credit 4.**

A study of A.R.E.A. symbols, authorized abbreviations, classifications, types of maps, scales, topographic mapping, and construction of maps, well spotting, isopach and contour maps, theory and construction of stratigraphic and construction cross section; contours and contour sketching and coloring; copy-duplicating reproduction. (190804)

**246. Civil Engineering Drafting. (3-3). Credit 4.**

A study of drafting problems and techniques as applied to civil engineering projects, including road and highway work, bridges, dams, earthwork, city traffic, and utilities. (060401)

## ELECTRICAL/ELECTRONICS TECHNOLOGY DEPARTMENT

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
History 131 .....	3	History 132 .....	3
Approved English .....	3	Approved English .....	3
Math of Electronics 131 .....	3	Math of Electronics 132 .....	3
Basic Electricity 141 .....	4	Basic Electronics 142 .....	4
Engineering Graphics 131 .....	3	Basic Circuits 133 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	18		17

### Sophomore Year (Electrical Option)

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Report Writing 133 .....	3	Industrial Psychology 234 .....	3
Electrical Machinery 240 .....	4	Electrical Systems Design 245 .....	4
Industrial Control Circuits 241 .....	4	Advanced Control Circuits 242 .....	4
Approved Elective .....	3	Approved Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	18		18



**Sophomore Year  
(Electronics Option)**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Report Writing 133 .....	3	Industrial Psychology 234 .....	3
Advanced Electronics 246 ....	4	Advanced Electronics 247 .....	4
Electronic Systems 233 .....	3	Electronic Systems 234 .....	3
Electronic Applications 243 ....	4	Electronic Applications 244 .....	4
Physical Education 211 .....	1	Physical Education 212 .....	1
<hr/> 18		<hr/> 18	

**COURSE DESCRIPTIONS**

**131, 132. Math of Electronics. (3-0). Credit 6.**

First half: Mathematics as applied to electricity and electronics; trigonometry as applied to electrical and electronic problems; battery circuits; Kirchoff's laws; decibels and transmission lines; periodic functions; plane vectors; alternating current circuits. Second half: a continuation of the first half and a study of problems concerning network, coupled circuits, matching impedances, transients in linear networks, and electron ballistics. (191001)

**141. Basic Electricity. (3-3). Credit 4.**

A theoretical study will be made of the elementary principles of electricity and magnetism. This course will include consideration of Ohm's Law, and Murray loops, series and parallel circuits, work and power calculations, and calculation of magnetic circuits. The course is correlated with the laboratory work in electrical testing and direct current machinery. (190901)

**142. Basic Electronics. (3-3). Credit 8.**

First half: Fundamentals of alternating and direct current theory important to the understanding of radio and electronics. Second half: fundamentals of vacuum tubes and transistors and their applications in power supplies and amplifiers. Laboratory work consists of testing circuits and learning the proper use of voltmeters, ammeters, oscilloscopes, signal generators and other testing equipment. (191002)

**133. Basic Circuits. (3-0). Credit 3.**

Fundamental principles of direct and alternating current circuits; single and polyphase circuits included. (190903)

**240. Electrical Machinery. (3-3). Credit 4.**

Electrical machines; applications, characteristics, and controls. Operation and testing of electrical machinery commonly used in industry. (190915)

**241. Industrial Control Circuits. (3-2). Credit 4.**

Theory and survey of various types of industrial control circuits. (191011)

**242. Advanced Control Circuits. (3-2). Credit 4.**

Advanced theory and application of industrial control circuits. (191012)

**243, 244. Electronic Applications. (3-3). Credit 8.**

First half: networks, filters, and transmitters. Second half: a study of oscillators, modulators, antennae, radio propagation, with application to radio transmitters and receivers, telemetering and instrumentation. (191007)

**245. Electrical Systems Design. (3-3). Credit 4.**

Design and layout of electrical systems for residences, commercial buildings, industrial plants, and farms. (190921)

**246, 247. Advanced Electronics. (3-3). Credit 8.**

A study of special amplifiers, oscillators, pulse circuits, modulation, and detection. Laboratory: learning the proper adjustment and testing. (191004)

**233, 234. Electronic Systems. (2-2). Credit 6.**

A study of complete electronics systems. Laboratory: working on projects, testing, and adjusting complete electronic systems. (191006)

**RADIO AND TELEVISION SERVICING****Freshman Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
History 131 .....	3	History 132 .....	3
Approved English .....	3	Approved English .....	3
Fundamentals of Radio 141 ....	4	Advanced Radio Servicing 143 ..	4
Fundamentals of Television 142 .	4	Advanced Television	
Approved Business Elective ....	3	Servicing 144 .....	4
Psychology 111 .....	1	Approved Business Elective ....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
	<hr/> 19		<hr/> 18

**COURSE DESCRIPTIONS****141. Fundamentals of Radio Servicing. (2-4). Credit 4.**

A study of electrical fundamentals, vacuum tube operation, and radio circuits. Proper techniques for bench servicing of electronic equipment, isolating the malfunctioning circuit, and locating defective parts. (191006)

**142. Fundamentals of Television Servicing. (3-3). Credit 4.**

A study of electron tube circuits peculiar to television receivers and practical methods for troubleshooting and servicing of inherent problems. (191006)

**143. Advanced Radio Servicing. (2-4). Credit 4.**

Further study of radio and amplifier circuitry including high-fidelity and stereo components. The routine servicing of transistorized units is included. (191007)

**144. Advanced Television Servicing. (2-4). Credit 4.**

The operation and service of the more complicated television receiver circuits are covered in this course. Special attention is given to the use of techniques and equipment for the most economical solutions to difficult problems. Includes an introduction to transistorized and color television. (191012)

# ELECTRONIC DATA PROCESSING AND COMPUTER TECHNOLOGY DEPARTMENT

## Suggested Curriculum for Systems Programmers

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
Math 131 or 135 .....	3	Math 135 or 131b .....	3
History 131 .....	3	History 132 .....	3
Unit Record Wiring I 132 .....	3	Introduction to Programming 134 .....	3
Introduction to Computers 136 ..	3	Introduction to Data Processing Systems 135 .....	3
Physical Education 111 .....	1	Computer Operations 112 .....	1
Psychology 111 .....	1	Physical Education 111 .....	1
	<hr/> 17		<hr/> 17

### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Principles of Accounting I 241 ..	4	Principles of Accounting II 242 ..	4
Introduction to Business 131 ....	3	Computer Languages and Data Analysis 234 .....	3
(or Economics 231)		Programming Computer Solutions 236 .....	3
Intermediate Computer Programming 241 .....	4	Approved Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/> 15		<hr/> 17

## Suggested Curriculum for Unit Record and Computer Operators (9-Months Course)

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Bookkeeping 131 .....	3	Math 131b .....	3
English 131b .....	3	Introduction to Business 131 ....	3
Introduction to Computers 136 ..	3	Unit Record Wiring II 133 ....	3
Unit Record Wiring I 132 ....	3	Computer Operations 112 .....	1
Beginning Operations 111 .....	1	Approved Elective .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		<hr/> 14
	<hr/> 15		

## Suggested Curriculum for Keypunch Operators (9-Months Course)

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131b .....	3	Math 131b .....	3
Bookkeeping 131 .....	3	Introduction to Business 131 ...	3
Introduction to Data Processing 131 .....	3	Unit Record Wiring I 132 .....	3
*Beginning Keypunching 137 ..	3	Advanced Keypunching 138 ....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	14		13

### COURSE DESCRIPTIONS

- 121 111. **Beginning Operations.** <sup>16</sup>(1-1). <sup>16</sup>Credit 1.  
Card handling procedures for Unit Record Equipment. Machine applications in job execution. Concepts of operation for Unit Record and Computer Card Systems. (030603)
- 122 112. **Computer Operations.** (1-1). Credit 1.  
Operating procedures for IBM card, disk and tape systems; concepts of operating systems. Designed to develop skills in operating machine configurations by operating experience on computer systems. Prerequisite: EDP 131 or 136. (030603)
131. **Introduction to Data Processing.** (2-2). Credit 3.  
Introduction to Electronic Data Processing including history and development. Principles of operation and use of digital computers and related equipment. Real-time and on-line concepts. (030604)
132. **Unit Record Wiring I.** (2-3). Credit 3.  
Emphasis on acquiring skills in actual machine operations and basic control panel wiring. Includes punched card methods; card design and coding; actual machine practice in wiring of panel boards and operation of card punch, verifier, sorter, interpreter, reproducer, collator and accounting machine. Prerequisite: Credit or enrollment in EDP 131 or 136. (030608)
133. **Unit Record Wiring II.** (2-3). Credit 3.  
Requires a knowledge of principles of wiring and operation of unit record machines. Practical wiring applications to introduce the student to the principles of advanced wiring. Preparation and design of applications using the unit record system. Prerequisite: EDP 132. (030607)

\*Students must have a typing speed of 30 words per minute before they may enroll in this class.

**134. Introduction to Computer Programming. (2-3).****Credit 3.**

Designed to familiarize the student with the components of computers and to develop basic abilities needed in programming for business and scientific applications. Includes problem definition, flowcharting, block diagramming, and other basic computer techniques. Analysis and solution of practical data processing applications. Prerequisite: EDP 131 or 136. (030604)

**135. Introduction to Data Processing Systems. (3-2).****Credit 3.**

Elementary problems from business and science using logical and mathematical techniques particularly suited to digital computer characteristics. Problems involving qualifying descriptive data, manipulation of those data, and expressing of analysis in descriptive terms. Problem statements and flowcharting methods. Prerequisite: EDP 131 or 136. (030605)

**136. Introduction to Computers. (3-1). Credit 3.**

An introduction to computer terminology and techniques designed for data processing majors. History of data processing; computer concepts; input/output media and devices; programming concepts and preparation; management, organization and control of computer installations; differences in computer languages. (030604)

**137. Beginning Key punching. (2-2). Credit 3.**

Elements of keypunch operation. Designed to give the typist beginning skills in keypunch operation. Recommended for all beginning keypunch operators. Drills and exercises to develop punching accuracy and speed. Prerequisite: Typing speed of 30 wpm. (030603)

**138. Advanced Key punching. (2-2). Credit 3.**

Keypunch and verifier operation; program card design and preparation; drills to develop maximum efficiency and speed. Prerequisite: EDP 137. (030603)

**231. Management and Computers. (3-0). Credit 3.**

Planning, organizing and controlling data processing installations. Managerial aspects in the introduction and use of computers of new systems and management concepts. Prerequisite: EDP 131 or 136. (030605)

**233. Computer Languages and Data Processing. (2-3). Credit 3.**

Specialized languages used in third generation computer systems. Emphasis on 360 Systems RPG and ALC languages. Prerequisite: EDP 134. (030606)

**234. Computer Languages and Data Analysis. (2-2). Credit 3.**

Computer language in construction of algorithms using techniques particularly adaptable to digital computer characteristics. Analysis and solutions designed for system applications. Prerequisite: EDP 135. (030605)

**235. Programming Computer Solutions—Numeric Methods. (2-2). Credit 3.**

Theory and operation of digital computers and languages used to control logical and mathematical activities of computers. Number theory and logical systems applicable to computer design. Algebraic language programming. FORTRAN. Prerequisite: EDP 131 and 6 hours of math or EDP 136. (030606)

**236. Programming Computer Solutions — Non-Numeric Methods. (2-2). Credit 3.**

Theory and operation of digital computers and programming languages and techniques particularly suitable for problems non-numeric in nature. Course content governed by student's major. Prerequisite: EDP 131 or EDP 136. (030606) *EDP 134.*

**237. Field Project. (0-6). Credit 3.**

Problem in student's divisional major applying electronic data analysis and processing techniques. Prerequisite: 12 hours in data processing. (030605)

**241. Intermediate Computer Programming. (3-3). Credit 4.**

Codes, symbolic systems, algebraic and English-like languages requiring machine translation. Organization of data processing and data analysis systems. Methods of program construction involving debugging, housekeeping, looping and subroutines; tape and disk programming applications involving IOCS subroutines and file organization programs. Prerequisite: EDP 134. (030606)

**243. Data Acquisition and Teleprocessing. (3-3). Credit 4.**

Requirements and fundamentals of a teleprocessing system's design and programming; transmission capabilities and control; program protection and relocation; features and application of transmission devices. Prerequisite: 9 semester hours data processing. (030605)

## EXECUTIVE MANAGEMENT DEPARTMENT

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Introduction to Business 131 ..	3	Business Organization 132 .....	3
Approved English .....	3	Approved English .....	3
Math 131b .....	3	Math 132b .....	3
Introduction to Management 131	3	Introduction to Human Relations	
Approved Elective .....	3	in Management 132 .....	3
Physical Education 111 .....	1	Approved Elective .....	3
Psychology 111 .....	1	Physical Education 112 .....	1
<hr/>		<hr/>	
17		16	

## Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Principles of Economics 231	3	Principles of Economics 232	3
Principles of Accounting 241	4	Principles of Accounting 242	4
Introduction to Marketing 231	3	Personnel Management 232	3
Speech 233	3	Management Seminar 213	1
Approved Elective	3	Approved Elective	3
Physical Education 211	1	Physical Education 212	1
	<hr/> 17		<hr/> 15

## COURSE DESCRIPTIONS

**131. Introduction to Management. (3-0). Credit 3.**

This course is designed to give the student a knowledge and understanding of management theories and functions which are essential to the person planning a career in business or industry. (030405)

**132. Introduction to Human Relations in Management. (3-0). Credit 3.**

A study of "Human Relations" as an emerging scientific discipline of study in which basic concepts and principles concerning man at work are emphasized. It is structured to explain the "whys" and "wherefores" of the behavior of industrial man. (030404)

**231. Introduction to Marketing. (3-0). Credit 3.**

A study of those aspects of marketing which will achieve a conceptual understanding and serve the needs of business competence. Emphasis is placed on the economic aspect of marketing and its relationship to freedom and democracy. (030307)

**232. Personnel Management. (3-0). Credit 3.**

The dynamic role of management as it relates to personnel with emphasis on the management aspects important to the line executive or supervisor. Personnel functions and procedures are viewed in the light of management objectives while personnel management is treated as an active and dynamic process which is motivated by basic human drives. (030404)

## FARM AND RANCH MANAGEMENT DEPARTMENT

## Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Business English 131b	3	Principles of Economics 231	3
Business Mathematics 131b	3	Range Management I 134	3
Animal Husbandry I 131	3	Entomology 135	3
Agronomy 132	3	Soil Science 136	3
Wildlife Conservation and Management 133	3	Introduction to Business 131	3
Physical Education 111	1	Physical Education 112	1
Psychology 111	1		<hr/> 16
	<hr/> 17		

## Summer

\*Supervised cooperative occupational experience—seminar—6 hours (1 day each month on campus)

## Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Farm Mechanics I 231 .....	3	Range Management II 235 .....	3
Animal Husbandry II 232 .....	3	Livestock Marketing 236 .....	3
Management 132 .....	3	Farm and Ranch Records 237 ..	3
Feeds and Feeding 233 .....	3	Farm Mechanics II 238 .....	3
Horticulture 234 .....	3	Business Organization 132 .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/> 16		<hr/> 16

## COURSE DESCRIPTIONS

**131. Animal Husbandry I. (3-2). Credit 3.**

An introductory survey course. Farm animals as a source of food, clothing, and labor. The place of livestock in farming and ranching. The value of heredity and breeding for improvement, importance of judging, pedigrees, and proper nutrition. The place and adaptation of each class of livestock: show ring classification, and market and slaughter classes. (010401)

**132. Agronomy. (3-2). Credit 3.**

Classification and distribution of farm crops, their use, production, and identification will be studied with emphasis being placed on those crops important to Texas. New crop improvement, value of rotation, use and need of fertilizer will be determined by soil testing. Meadow and pasture management will be practiced on the College farm. Weeds, plant diseases, and insect enemies will be discussed. (010301)

**133. Wildlife Conservation and Management. (3-0). Credit 3.**

An introduction to the wildlife and fishery resources of the United States with special reference to Texas. The importance of plants and animals in our economic and cultural life. An account of what has happened to North American wildlife with consideration of specific plans and methods for its rehabilitation, maintenance, and increase. (011001)

**134. Range Management I. (3-2). Credit 3.**

Range management for the Southwestern part of the United States. Physical features affecting range conditions, problems in range management, administration and management of range lands, identification of major grasses and legumes. (010303)

\*Each student will work on a farm or ranch in the summer. He will be under the direct supervision of the employer and paid a regular salary.



**135. Entomology. (3-2). Credit 3.**

Chemical control of insects which affect crops and livestock. Control of external and internal parasites affecting animals. Safety factor in dealing with insecticides. (010601)

**136. Soil Science. (3-2). Credit 3.**

Advanced course in production practices of crops of the Southwest Texas area; small grains, vegetables; use of proper amounts of fertilizers in raising these crops. Prerequisite: Agronomy 132. (010201)

**231. Farm Mechanics I. (3-6). Credit 3.**

Basic farm shop skills in tool conditions, sketching, carpentry, painting, rope work, concrete, soldering, cold metal work, basic welding. (011101)

**232. Animal Husbandry II. (3-2). Credit 3.**

Study of animal health, beef cattle, sheep and goat production. Prerequisite: Animal Husbandry I. (010402)

**233. Feeds and Feeding. (3-0). Credit 3.**

Chemical composition of feeds, nutrients, requirements of farm animals, utilization of feeds, formulating and balancing rations. (010404)

**234. Horticulture. (3-2). Credit 3.**

Growth and structure of fruit, vegetable, and ornamental plants. Effects of environment on plant production and principles and methods of propagation. (010701)

**235. Range Management II. (3-2). Credit 3.**

Improvement and management of grasslands, production, re-establishing sod, controlling weeds, and eradication of undesirable vegetation, fertilization and rotation of grasslands. Prerequisite: Range Management I. (010304)

**236. Livestock Marketing. (3-2). Credit 3.**

Areas of livestock production and consumption, problems of producers and consumers, study of the agencies concerned with processing and distribution of meat and by-products, slaughtering of livestock, future marketing. (010407)

**237. Farm and Ranch Records. (3-0). Credit 3.**

Kinds of farm and ranch records and accounts. The analysis and use of inventories and accounts. Use of inventories in obtaining credit; the combined inventory and cash account records; the complete farm and ranch budget based on inventory and cash account records; Federal income tax returns; farm and ranch cash accounts; keeping, closing and using farm and ranch cost accounts. (011202)

**238. Farm Mechanics II. (3-6). Credit 3.**

A second course in farm shop skills for the farm and ranch student. Repair and maintenance of farm machinery; principles of gasoline engine and diesel engine; construction of fences and feed lot equipment; oxygen and acetylene welding; farm survey drainage and earthen construction. Prerequisite: Farm Mechanics I. (011102)

## HOTEL-RESTAURANT MANAGEMENT DEPARTMENT

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
History 131 .....	3	History 132 .....	3
Food Prep. and Serving 131 ....	3	Work Organization 134 .....	3
Nutrition 132 .....	3	Food Purchasing 135 .....	3
Sanitation and Safety 133 .....	3	Menu Planning 136 .....	3
Psychology 111 .....	1		
	<hr/> 16		<hr/> 15

### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Math 131b .....	3	Bookkeeping 131 .....	3
Intro. To Business 131 .....	3	Management Techniques 233 ....	3
Hotel and Rest. Eco. 231 .....	3	Front Office Procedures 234 ...	3
Hotel and Rest. Merchandising 232 .....	3	Hotel and Rest. Management Practice 235 .....	3
	<hr/> 15		<hr/> 15

## COURSE DESCRIPTIONS

### 131. Food Preparation and Serving. (3-3). Credit 3.

An introduction to techniques of food preparation. Includes preparation of vegetables, pastries, oven dishes, soups, salads, meats, fish, and poultry. Techniques include experimental cookery, food marketing and preservation, serving and table service. (100203)

### 132. Nutrition. (3-1). Credit 3.

A study of dietary needs; the role of proteins, fats, carbohydrates, minerals and vitamins; factors to be considered in proper selection and preparation of foods for maximum nutritional value. (100201)

### 133. Sanitation and Safety. (2-3). Credit 3.

Personal cleanliness; sanitary practices in food preparation; cause investigation and control of illness caused by food contamination; food storage and refrigeration; sanitation of dishes, equipment and kitchens; cleansing materials, garbage and refuse disposal; safety precautions and accident prevention.

### 134. Work Organization. (1-3). Credit 3.

Methods and techniques of planning and organizing work. Principles of time and motion as related to efficient use of worker and work place. Application of work simplification procedures for maximum efficiency of operation.

### 135. Food Purchasing. (2-2). Credit 3.

Applied theory of food and beverage purchasing; factors affecting selection, standards, quality and prices; techniques of receiving, storing and issuing supplies, foods, and materials; applied theory of cost control, pricing and portions. (100201)

**136. Menu Planning. (2-2). Credit 3.**

Basic factors of planning menus; variety and nutrition in menu planning; techniques of preparing attractive menus and maintaining budgetary controls; types of menus for various public and private institutions. (100204)

**231. Hotel and Restaurant Economics. (3-0). Credit 3.**

Economic principles, problems and policies related to hotel and restaurant management; overhead and hidden costs; cost control. (100205)

**232. Hotel and Restaurant Merchandising. (2-3). Credit 3.**

Sales promotion; interior decor; types and uniformity of service; room; food and beverage display; menu and room styling. (030310)

**233. Management Techniques. (3-1). Credit 3.**

Interviewing and selecting personnel; personnel relations; scheduling work loads; house policy; labor-management relations; in-service training; safety; customer relations; legal aspects of hotel operation. (030405)

**234. Front Office Procedures. (2-2). Credit 3.**

A lecture-laboratory experience covering duties of room clerk, cashier, night auditor, machine operators, clerks and personnel necessary to proper functioning of a hotel. House-keeper staff, reservations, credits. (030403)

**235. Hotel and Restaurant Management Practice. (0-10). Credit 3.**

Supervised work experience and practical application of management techniques.

## LAW ENFORCEMENT TECHNOLOGY DEPARTMENT

The Associate in Applied Science Degree in Law Enforcement Technology is designed to meet the needs of persons seeking employment with, or promotion in public or private agencies concerned with maintaining public safety, preventing crime, apprehending and rehabilitating criminals, and social welfare.

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
History 131 .....	3	History 132 .....	3
English 131 .....	3	English 132 .....	3
Police Administration 131 ....	3	Criminal Evidence 134 .....	3
Criminal Investigation 132 ....	3	Safety and First Aid 235 .....	3
Criminal Law 133 .....	3	Traffic Law and Court	
Physical Education 111 .....	1	Procedures 135 .....	3
Psychology 111 .....	1	Physical Education 112 .....	1
	17		16

## Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Juvenile Procedures 234 .....	3	Firearms and Defensive Tactics	
Administration of Law 232 ....	3	231 .....	3
Sociology 233 .....	3	Police Records and Identification	
Speech 233 .....	3	235 .....	3
Physical Education 211 .....	1	Law Enforcement Seminar 233 ..	3
	—	Psychology 231 .....	3
	16	Physical Education 212 .....	1
			—
			16

## COURSE DESCRIPTIONS

**131. Police Administration. (3-0). Credit 3.**

A philosophy and history of law enforcement; organization and jurisdiction of local, county, state and federal law enforcement agencies; professional opportunities, organizations and qualifications required. Analysis of the duties and responsibilities of police administration.

**132. Criminal Investigation. (3-0). Credit 3.**

Modern methods and skills required for criminal investigation, to include discovery methods, development and lifting of latent fingerprints; criminal scene sketches; the use of plaster and silicone rubber for reproducing evidence at crime scene; use of modern investigation aids and techniques of criminal interrogation.

**133. Criminal Law. (3-0). Credit 3.**

A study of definitions, structure and important sections of the Penal Code and other criminal statutes and procedures. Covers laws of arrest, search, and seizure; laws of evidence, criminal procedure and Texas Penal Code.

**134. Criminal Evidence. (3-0). Credit 3.**

The types and degrees of evidence and the rules governing the admissibility of evidence into court; investigation procedures, crime scene, search and recording; collection and preservation of evidence; laboratory aids; sources of information; interviews and interrogation; follow-up and case preparation.

**135. Traffic Law and Court Procedures. (3-0). Credit 3.**

State vehicle requirements and related laws; routine traffic duties of an officer; traffic accident investigation techniques and reports; special traffic problems; the traffic court; case preparation from incident to final disposition through court.

**231. Firearms and Defensive Tactics. (2-2). Credit 3.**

The moral aspects, legal provisions, safety precautions and restrictions governing the use of firearms; firing of firearms and shotguns; protection against persons armed with dangerous and deadly weapons; demonstration and drill in a limited number of holds; restraint of prisoners and mentally ill; use of the baton; mob control.

**232. Administration of Law. (3-0). Credit 3.**

The court system; principles of constitutional, federal, state, and civil laws as they apply to and affect law enforcement. Mock investigations and procedures from incident to final court disposition. Punishment, treatment and prevention of criminality. Sociological analysis of probation, parole and prison administration.

**233. Law Enforcement Seminar. (2-2). Credit 3.**

A problems course in law enforcement.

**234. Juvenile Procedures. (2-2). Credit 3.**

The organization, functions and jurisdiction of juvenile agencies; the processing and detention of juveniles, case disposition; juvenile statutes and court procedures. Lab section of this course is to be completed on-the-job working with juvenile officers.

**235. Police Records and Identification. (3-0). Credit 3.**

A study of the organization and operations of different systems of records, including related complaint, arrest, identification, and administrative records.

## MACHINE TOOLS TECHNOLOGY DEPARTMENT

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
History 131 .....	3	History 132 .....	3
English 131 .....	3	English 132 .....	3
Machine Shop Practice 141 ....	4	Machine Shop Practice 142 ....	4
Engineering Graphics 131 ....	3	Beginning Welding 131 .....	3
Basic Technical Math 131T ....	3	Advanced Technical Math 132T .	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	18		17

### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Advanced Welding 132 .....	3	Report Writing 133 .....	3
Machine Shop Practice 241 ....	4	Machine Shop Practice 242 ....	4
Strength of Materials 244 .....	4	Electrical Machinery 240 .....	4
Metallurgy 245 .....	4	Industrial Psychology 234 .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	19		18

## COURSE DESCRIPTIONS

**131. Beginning Welding. (1-6). Credit 3.**

Electric, oxy-acetylene welding and torch cutting. Making fusion welds in all positions with both the electric and oxy-acetylene welding. Using the hand cutting torch and cut-a-line cutting machine. (110407)

**132. Advanced Welding. (1-6). Credit 3.**

Electric, oxy-acetylene welding and torch cutting. Concentration on welding tests required by industry. Pipe welding. Precision torch cutting in preparing welding joints. (110407)

**133. Sheet Metal Pattern Drafting. (1-3). Credit 3.**

This course consists of a review of geometric construction, followed by the three divisions of sheet metal pattern layout, namely: parallel line, radial line, and triangulation. (110102)

**134. General Metalwork. (1-4). Credit 3.**

The designing and construction of power machinery including the development of plans for procedure, jigs, and fixtures. A study of materials and industrial processes and procedures of the foundry, welding, and machine shop. (110402)

**135. General Machine Shop. (1-4). Credit 3.**

Beginning bench metal and machine metal work involving the theory and operation of the drill press, power saw, grinders, engine lathe, the shaper, the milling machine, and Doall saw. (110403)

**141. Machine Shop Practice. (2-4). Credit 4.**

Theory and practice in basic metal working, hand and machine tool operation and maintenance. Includes related instruction in blueprint reading and precision measurement. (110403)

**142. Machine Shop Practice. (2-4). Credit 4.**

Theory and practice in laying out and setting up machine tools to perform selected work. Includes related instruction in basic metallurgy. (110403)

**241. Machine Shop Practice. (2-4). Credit 4.**

Theory and practice in planning and executing machine shop production work. Includes instruction in jig and fixture design and production. (110404)

**242. Machine Shop Practice. (2-4). Credit 4.**

Theory and practice in designing and tooling for quantity production of selected unit. Includes instruction in selection of materials and fabrication methods. (110404)

**244. Strength of Materials. (2-4). Credit 4.**

Study is made of the internal stresses and deformation of elastic bodies resulting from the action of external forces. Emphasis is given to the analysis of the simple and combined stresses and properties of materials to meet the functional requirements of design. Strength of such elements as riveted joints, beams, columns, shafts, and keys are determined. (090120)

**245. Metallurgy. (2-4). Credit 4.**

Metals commonly used in industry are studied in this elementary physical metallurgy course. A short period is devoted to the methods used in extracting metals from ores. A detailed study of the properties of the most common ferrous and non-ferrous metals and alloys and their industrial applications is made. A study of the heat treatment and tool steels and high strength alloy steels is included in this course. (191101)

## NURSING DEPARTMENT

The Associate Degree Nursing Program consists of two, ten and one-half month sessions. The program includes academic study in the college classroom and clinical experience in the hospital. At the completion of this program, the student is awarded an Associate in Applied Science Degree and is entitled to write the National Test Pool Examination to qualify as a Registered Nurse (R.N.).

**Admission Requirements:** The student's application for general admission to the College must be approved. In addition to the requirements for admission to the College, the following are required of the Nursing Program: 1. Physical examination report signed by a licensed physician. 2. Personal interview with the Director of the Nursing Program.

In order to maintain good standing in the Nursing Program, the student must earn a grade of "C" or better in each nursing course taken and maintain an overall grade average of "C".

Requests for applications or information should be sent to the Director of Student Affairs, Central Texas College, Killeen, Texas 76541.

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
Anatomy and Physiology 143 ..	4	Chemistry 141 .....	4
Fundamentals of Nursing 161 ..	6	Medical-Surgical Nursing 192 ..	9
Psychology 231 .....	3		
Physical Education 216(FM) ..	1		
Psychology 111 .....	1		
	<hr/>		<hr/>
	18		16

### Summer Semester (6 weeks)

Subject	Hours
Microbiology 132 .....	3
Sociology 231 .....	3
	<hr/>
	6

### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Psychology 233 .....	3	Medical-Surgical Nursing 292 ..	9
Maternal and Child Health Nursing 291 .....	9	Nursing Seminar 223 .....	2
	<hr/>		<hr/>
	15		14

### Summer Semester (6 weeks)

Subject	Hours
Psychiatric Nursing 264 .....	6
	<hr/>
	6

## COURSE DESCRIPTIONS

**161. Fundamentals of Nursing. (3-9). Credit 6.**

This course introduces the student to nursing. Instruction and practice in basic principles and skills are provided. Experiences in the clinical area are developed to provide intellectual and emotional maturation of the student as well as constructive learning. The student is introduced to content which will be integrated in all nursing courses; i.e., nutrition, pharmacology, pathology, rehabilitation, and prevention as well as sociological and psychological aspects. Hospitals and other agencies are used for both observation and practice. (190501)

**192. Medical-Surgical Nursing. (4-15). Credit 9.**

This course is an introduction to basic medical and surgical nursing necessary for knowledge and skill in the care of medical-surgical patients. The nursing problems of patients with respiratory, cardio-vascular, genito-urinary diseases, congenital and hereditary diseases are considered. Prerequisite: Fundamentals of Nursing. (190509)

**291. Maternal and Child Health Nursing. (4-15). Credit 9.**

The mother, child, and family are considered as a community unit in this course. Lectures and practice in the nursing care of the mother and child are provided. The nursing care of the mother during pregnancy, delivery, and post-partal periods and the infant during the neonatal period are included. Emphasis is placed on the different needs of children in illness due to the influence of developmental stages and pathological conditions. Prerequisite: Medical-Surgical Nursing 192. (190516)

**292. Medical-Surgical Nursing. (4-15). Credit 9.**

The health problems of sensory and motor disturbances, allergic phenomena are vehicles for the continued study in medical-surgical nursing. The course is designed to increase knowledge and skills necessary for comprehensive nursing care. Prerequisite: Medical-Surgical Nursing 192. (190509)

**223. Nursing Seminar. (2-0). Credit 2.**

This course is a seminar consisting of an exploration of nursing both past and present, including a discussion of problems, responsibilities and expectations of the graduate nurse. (190521)

**264. Psychiatric Nursing. (6-24). Credit 6.**

This course is concerned with the development of personality, the dynamics of behavior, and the maintenance of restoration of mental health. Emphasis is placed on the nurse's role in relationship with mentally ill patients, as a member of the psychiatric team, and as a member of society. (190507)



# OFFICE OCCUPATIONS DEPARTMENT

## Secretarial Science Curriculum (Two-Year Program)

### Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131b .....	3	English 132b .....	3
Office Machines 131 .....	3	Secretarial Practices 131 .....	3
Filing, Duplicating, Voice Writing 131 .....	3	*Intermediate Shorthand 132 ..	3
*Beginning Shorthand 131 .....	3	*Intermediate Typewriting 132 ..	3
*Beginning Typewriting 131 .....	3	Elective .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	<hr/> 17		<hr/> 16

### Sophomore Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Math 131b .....	3	Bookkeeping 132 .....	3
Bookkeeping 131 .....	3	Introduction to Business 131 .....	3
*Advanced Shorthand 231 .....	3	Report Writing 133 .....	3
*Advanced Typewriting 231 .....	3	Approved Elective .....	3
Physical Education 211 .....	1	Physical Education 212 .....	1
	<hr/> 16		<hr/> 16

## Secretarial Science Curriculum (9-Months Program)

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131b .....	3	English 132b .....	3
Office Machines 131 .....	3	Mathematics 132b .....	3
*Shorthand .....	3	*Shorthand .....	3
*Typewriting .....	3	*Typewriting .....	3
Filing, Duplicating, Voice Writing 131 .....	3	Secretarial Practices 131 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		
	<hr/> 17		<hr/> 16

\*Beginning or advanced levels of shorthand and typewriting will be determined by the academic counselor based on the student's current skill, if any.

### Clerical Curriculum (9-Months Program)

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131b .....	3	English 132b .....	3
Math 131b .....	3	Bookkeeping 132 .....	3
Bookkeeping 131 .....	3	Office Machines 131 .....	3
*Typewriting 131 .....	3	*Typewriting 132 .....	3
Filing, Duplicating, Voice Writing 131 .....	3	Secretarial Practices 131 .....	3
Physical Education 111 .....	1	Physical Education 112 .....	1
Psychology 111 .....	1		16
	<hr/> 17		

### Bookkeeping Curriculum (9-Months Program)

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Bookkeeping 131 (BK) .....	3	Bookkeeping 132 (BK) .....	3
Business English 131b .....	3	Report Writing 133 (RW) ....	3
Business Mathematics 131b ....	3	Mathematics of Finance 132b ..	3
Office Machines 131 (OM) ....	3	Electronic Data Processing 137 .	3
Electronic Data Processing 131 .	3	Introduction to Business 131 ...	3
Psychology 111 .....	1	Physical Education 112 .....	1
Physical Education 111 .....	1		16
	<hr/> 17		

Advanced work may be taken in a variety of accounting and electronic data processing systems.

### PHOTOGRAPHY DEPARTMENT (One-Year Program)

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Photographic Principles 141 ....	4	Television Photography 241 ....	4
Commercial Photography 142 ..	4	Portrait Retouching 242 .....	4
Portrait Photography 143 .....	4	Color Photography 243 .....	4
Introduction to Business 131 ....	3	Bookkeeping 131 .....	3
Business Elective .....	3	Business Elective .....	3
	<hr/> 18		18

### COURSE DESCRIPTIONS

#### 141. Photographic Principles. (3-3). Credit 4.

The course includes elements of composition, negative handling, exposure, explanation, and demonstration of negative processing; contact and projection printing; elementary study of light, cameras, lenses, filters, and other photographic equipment; and discussions and demonstration of different types of negative materials, photographic papers, and their characteristics. (191201)

\*Beginning or advanced levels of shorthand and typewriting will be determined by the academic counselor based on the student's current skill, if any.

**142. Commercial Photography. (2-4). Credit 4.**

The course is an advanced study of photography, emphasis on photo-journalism. Extensive practice in the use of professional cameras, enlargers, contact printers, and other photographic equipment is given. (191203)

**143. Portrait Photography. (1-5). Credit 4.**

A study is made of fundamental lighting, camera techniques, posing, composition, processing, and printing as applied to portraiture. Retouching negatives and prints, mounting prints, and making story-telling pictures for fashion and advertising are emphasized. (191205)

**241. Television Photography. (1-4). Credit 4.**

Elementary instruction and practice in movie work for television and allied fields. Laboratory work in editing, splicing continuity, and use and maintenance of the motion picture camera.

**242. Portrait Retouching. (2-2). Credit 4.**

Portrait negatives retouched by the use of leads, dye, and etching with special attention to the study of facial structure and demonstrations in printing and retouching negatives. Some color techniques included. (191205)

**243. Color Photography. (2-2). Credit 4.**

Theory and practice, problems encountered in lighting, color harmony and processing. Type-C Color. Basic principles of photomicrography.

**TELECOMMUNICATIONS TECHNOLOGY DEPARTMENT****Freshman Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131 .....	3	English 132 .....	3
History 131 .....	3	History 132 .....	3
Telecommunications 130 .....	3	Telecommunications 131 .....	3
Announcing and Writing 132 ..	3	Introduction to	
*Approved Elective .....	3	Telecommunications 133 .....	3
Physical Education 111 .....	1	*Approved Elective .....	3
Psychology 111 .....	1	Physical Education 112 .....	1
	<hr/> 17		<hr/> 16

**Sophomore Year**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Government 231 .....	3	Government 232 .....	3
Fundamentals of Radio		Programming for Radio 231 ....	3
Production 230 .....	3	Programming for Television 233	3
Fundamentals of Television		Programming for Instructional	
Production 232 .....	3	Radio and Television 235 ....	3
Telecommunications Engineering		*Approved Elective .....	3
Laboratory 234 .....	3	Physical Education 212 .....	1
*Approved Elective .....	3		<hr/> 16
Physical Education 211 .....	1		
	<hr/> 16		

\*Approved Electives must be chosen from Art, Electronics, Journalism, Math, Music, Photography, Speech, Typewriting, or Theater.

## COURSE DESCRIPTIONS

**130. Telecommunications. (3-0). Credit 3.**

Survey of Mass Communications; newspapers, magazines, book and periodical publishing, film making, press associations and syndicates, advertising, public relations, and journalism, with special emphasis on radio and television. Field trips may be required. (040101)

**131. Telecommunications. (2-1). Credit 3.**

Radio and Television Station management; Federal Communications Commission rules and regulations; licensing requirements; organization and operation procedures for closed circuit, microwave, and Ultra High Frequency broadcasting. (040102)

**132. Announcing and Writing for Telecommunications. (2-1). Credit 3.**

Voice and diction for announcing, microphone techniques, analysis of writing for the broadcast media, script writing, format structuring, and practice in writing and presenting commercial copy, news coverage, public service announcements, documentaries and special programs. (040101)

**133. Introduction to Telecommunications. (2-1). Credit 3.**

The analysis of technical problems in broadcasting, including traffic, logging, scheduling, news services, production, programming, graphics, directing, and engineering. Practical experience in operating studio facilities and supporting services. (140102)

**230. Fundamentals of Radio Production. (2-2). Credit 3.**

Principles and problems encountered when broadcasting in the public interest; the relationship of radio to television, film, advertising, and journalism; the processes involved in programming and production; employment possibilities and trends; the changing scope of broadcasting. Practical experience in radio broadcasting techniques. Field trips may be required. (120202)

**231. Programming for Radio. (2-2). Credit 3.**

A survey of concepts, skills and technical facilities required for performance and production; the study of station format, scheduling and programming; training in planning, preparation, and production of programs suitable for AM or FM broadcasting for public consumption. The course will also include a survey of the use of radio in education, investigating its purpose, scope, sequence, methods and materials relating to instructional technology. (120202)

**232. Fundamentals of Television Production. (2-2). Credit 3.**

A study of the techniques and skills used in Television production, including, the use of TV cameras, switching equipment, studio lighting, audio equipment, film chain, and other components of the College closed-circuit microwave and UHF television broadcasting system. Students will participate in television production as performers, cameramen, switchers, floor manager, video and audio engineers, and directors. Field trips may be required. (120203)

**233. Programming for Television. (2-2). Credit 3.**

Discussion and practical experience in television planning, preparation, and production of programs meeting professional standards for broadcasting. This will include student productions of telecasts covering such activities as news, drama, variety, discussion, public service, and other programming suitable for "on air" presentation. (120203)

**234. Telecommunications Engineering Laboratory. (1-3). Credit 3.**

Training in radio and television studio and control equipment. Assembling and testing of equipment. Test patterns and wave forms. Mechanical aspects of the TV camera, servicing and maintenance. Operation and maintenance of the video-tape recorder. National and International radio and television network hook-ups, and advanced training in radio and television engineering techniques.

**235. Programming for Instructional Radio and Television. (2-3). Credit 3.**

A survey of educational television from its beginnings to the present, its similarities and differences as compared to commercial television, its multiple capabilities of enrichment, augmentation and direct instruction, and its future role in educational technology. Members of the class will assist in all phases of presentations of instructional programming of the Arts and Sciences via the College's closed-circuit, microwave, and UHF (Ultra High Frequency) broadcast facilities.

## ADULT EDUCATION PROGRAM

The purpose of the Adult Education Program at Central Texas College is to meet the continuing educational needs of the adults in the area. To achieve this purpose, organized programs of instruction will be provided in response to expressed public demand and area needs. These offerings serve both general and specific educational purposes.

The Adult Education Program is based on the philosophy that the entire area benefits when individual members are successful in meeting their own economic responsibilities, and are skilled and competent in their chosen vocations. The intent of adult classes is to provide training for the individual rather than to provide training for employees of a particular company or organization. Therefore, classes are open to the general public.

Classes are geared to the changing needs of the area and changing requirements of businesses and industries in which citizens of the area are employed. These changes are continuously reflected in the course content.

Training is given in areas where job opportunities clearly exist for trained workers and requests for such training have been made by citizens of the area. The programs of study herein described are designed to prepare the student for jobs in business and industry, to ensure job competency, and to provide a better understanding of civic responsibilities.

**Vocational Education:** Vocational courses are designed to offer educational opportunities above the high school level through which adults in the area may qualify for initial employment, increase their vocational proficiency once they have obtained employment, and make satisfactory advancement within their chosen vocations.

**Business Education:** Classes offered in business are the result of close and constant cooperation between the College and business community. In many cases, classes are established on the basis of specific requests from area agencies such as the board of realtors, merchants' associations, and chambers of commerce. In areas of real estate, data processing, management, and retailing and marketing, the business program is strengthened by the assistance received from committees composed of representatives from business, the military, industry, labor, management, and education. These advisory groups assist in developing guidelines for program development relative to occupational requirements and standards. Through this procedure, all business courses, including secretarial and clerical courses, are developed to provide adult students pre-employment and in-service training in areas of knowledge and skills necessary to meet occupational requirements of the area.

**Homemaking and Parent Education:** Since the American home is the cornerstone of American society, the improvement of that institution is one of the goals of the adult education program. This program will include classes in parent education and family relations. It will provide counseling for parents on wholesome methods and procedures relating to behavior, guidance, and learning at each stage of child development. Adult education also cooperates with teachers in the elementary schools in providing training for parents which will assist them in helping their children in the development of fundamental skills. Instructions in the knowledge, techniques, and skills of homemaking are included in this curriculum.

**Practical Arts:** The appreciation of, and participation in, practical arts and vocational interests are essential to the welfare of our society. Adults need opportunities to grow as intellectual and emotional beings, to share in the culture of the past and present, to find worthwhile outlets through experiences in the arts and crafts. Many students find the real joy of living in the experiences of creation and appreciation. While instruction in these activities is not allowed to dominate the program, it is encouraged as a definite part of the educational curriculum of the adult program.

## **ADULT EDUCATION COURSES**

(No college credit)

### **Advertising**

Advertising and the News Media  
Copywriting and Layout  
Budgeting in Advertising  
Public Relations  
Interior and Window Display

### **Banking**

Bookkeeping  
Business Law and Banking  
Business Letters and Banking  
Money and Banking  
Public Speaking  
Negotiable Instruments  
Business Administration and Banking  
Banking Economics

### **General Business**

Math for Retailing  
Letter Writing  
Business Speech

Rapid Reading for Business  
 and Professional Personnel  
 Business Communications  
 Employee Communications  
 Employee Training  
 Credit and Collections  
 Principles of Supervision  
 Human Relations  
 Record Keeping for Small Businesses  
 Standards for Secretaries  
 Legal Receptionist  
 Medical Receptionist  
 Spanish for Business  
 PBX Receptionist  
 Shorthand Refresher Course  
 Typewriting Improvement  
 Store Security and Hot Checks  
 Personnel Relations

### **Insurance**

Insurance Underwriting  
 Insurance Adjusting  
 Life Insurance  
 Automobile Insurance  
 C. L. U.

### **Business Management**

Bookkeeping for Small Businesses  
 Accounting Systems  
 Income Tax Problems and Procedures  
 Credit Management  
 Purchasing  
 Personnel Supervision  
 C.P.A. Review

### **Real Estate**

Real Estate Appraisal  
 Real Estate Law  
 Real Estate Salesmanship  
 Review Course for Brokers  
 and Salesmen License  
 Real Estate Analysis of Land

### **Salesmanship**

Basic Salesmanship  
 Advanced Salesmanship  
 Men's Fashions  
 Women's Fashions



Public Relations  
Cashiering and Salesmanship

### **Homemaking**

Construction of Home Furnishings  
Interior Decoration  
Meal Planning and Preparation  
Basic Clothing Construction  
Intermediate Clothing Construction  
Advanced Clothing Construction  
Home Nurse Development  
Upholstery

### **Other Non-Credit Courses**

Basic Ceramics  
Women's Conditioning Class  
Creative Thinking  
Great Books Lectures  
Archaeology for Beginners  
Anthropology for Beginners  
Blueprint Reading  
Basic Drawing  
Driver's Education

### **Special Requests**

Other non-credit courses may be arranged to meet specific requests from interested persons.

# INDEX

## A

Absences .....	38
Academic Load .....	41
Accounting Courses .....	48
Accreditation .....	3
Adding Courses .....	42
Administrative Assistants .....	18
Administrative Officers .....	17
Administrative Staff .....	18
Admission Requirements .....	26
Adult Education Program .....	117
Advanced Standing Credits .....	27
Agriculture Department .....	46
Air Conditioning Technology Department .....	88
Anthropology Courses .....	82
Art Courses .....	61
Associate in Applied Science .....	30
Associate in Arts .....	30
Associate in Science .....	30
Astronomy Courses .....	80
Athletic Program .....	36
Attendance Record .....	39
Attendance Rules .....	39
Automotive Technology Department .....	89

## B

Bible Courses .....	82
Biology Courses .....	77
Board of Trustees .....	17
Bookkeeping Program .....	113
Business Administration Department .....	48
Business and Economics Courses .....	49
Business Law Courses .....	50
Business Mathematics Courses .....	51

## C

Calendars .....	20
Calendar of Events .....	21
Campus Dress .....	37
Campus, Location of .....	23
Career Pilot Technology Department .....	91
Certificate of Completion .....	30
Change of Address .....	40
Chemistry Courses .....	78
Class Hours .....	44
Class Membership .....	35
Classification of Students .....	43
Clerical Curriculum .....	113
College Work-Study Program .....	33
Communication Department .....	53
Computer Programming Courses .....	98
Counseling .....	31
Course Numbers .....	45
Course Planning .....	41

## D

Degrees Conferred .....	29
Deposits .....	33
Division of Arts and Sciences .....	46
Divisions of Engineering and Technology .....	88
Dormitories .....	41
Drafting and Design Technology Department .....	94
Drama Courses .....	<del>68</del>
Dropping Courses .....	42

## E

Earth and Space Science Courses .....	80
Economics Courses .....	50
Education Department .....	57
Educational Objectives .....	24
Educational Opportunity Grants .....	33
Educational Philosophy .....	24
Electrical-Electronics Technology Department .....	95
Electronic Data Processing and Computer Technology Department .....	98
Engineering Department .....	59
English Courses .....	53
Enriched Studies Program .....	45
Entrance Examinations .....	31
Evening College .....	34
Examinations .....	39
Executive Management Department .....	101
Extension Courses .....	25

## F

Farm and Ranch Management Department .....	102
Federal Guarantee Loan Program .....	33
Fees .....	32
Financial Aid Programs .....	33
Fine Arts Department .....	61
Flow Chart of College Programs .....	28
Foreign Language Department .....	69
Forensics Courses .....	54
French Courses .....	69

## G

G. E. D. Tests .....	26
G. I. Bill .....	33
General Information .....	23
Geography Courses .....	83
Geology Courses .....	79
German Courses .....	70
Government Courses .....	83
Grade Points .....	44
Grade Reports .....	44
Grades and Point Averages .....	44
Graduation Requirements .....	29

## H

Health Certificate .....	31
--------------------------	----

High School Requirements .....	29
Historical Background .....	23
History Courses .....	83
Home Economics Department .....	71
Honor Roll .....	44
Hotel-Restaurant Management Department .....	105
Housing Policy .....	41

## J

Journalism Courses .....	56
--------------------------	----

## L

Law Enforcement Technology Department .....	106
Library, Oveta Culp Hobby Memorial .....	31
Literature Courses .....	54

## M

Machine Tools Technology Department .....	108
Mathematics Department .....	73
Message from the President .....	13
Military Credit .....	34
Military Educational Benefits .....	33
Music Courses .....	63

## N

National Defense Student Loan Program .....	33
Natural Sciences Department .....	77
Non-Credit Courses .....	118
Nursing Department .....	110

## O

Office Occupations Department .....	112
Oveta Culp Hobby Memorial Library .....	31

## P

Parking Regulations .....	40
Philosophy Courses .....	84
Photography Department .....	113
Physical and Health Education Department .....	74
Physical Sciences Department .....	79
Physics Courses .....	80
Pre-Dental Curriculum .....	86
Pre-Law Curriculum .....	86
Pre-Medical Curriculum .....	86
Pre-Nursing Curriculum .....	87
Pre-Professional Programs .....	86
Pre-Veterinary Curriculum .....	87
Psychology Courses .....	84

## R

Radio Servicing Curriculum .....	97
----------------------------------	----

Reading Courses .....	53
Real Estate Courses .....	50
Recommended High School Program .....	29
Refund of Tuition .....	33
Registration Requirements .....	26
Registration, What to Do Before .....	26
Residency Status .....	35
Russian Courses .....	70

## S

Scholastic Dishonesty .....	38
Scholastic Probation .....	43
Scholastic Standards .....	42
Secretarial Science Program .....	51
Shorthand Courses .....	52
Social Sciences Department .....	81
Sociology Courses .....	85
Spanish Courses .....	70
Speech Courses .....	55
Speech Education Courses .....	55
Stenography Courses .....	112
Student Activities .....	36
Student Center .....	37
Student Conduct .....	37
Student Discipline .....	37
Student Organizations .....	36
Suggested Curricula .....	45
Summer Sessions .....	34
Summons to Administrative Offices .....	40

## T

Table of Contents .....	19
Tardiness .....	38
Television Servicing Curriculum .....	97
Telecommunications Technology Department .....	114
Texas Opportunity Grants .....	33
Textbooks .....	44
Theatre Arts Courses .....	68
Transcripts .....	43
Transfer of Courses to Other Colleges .....	43
Transfer of Credits .....	25
Tuition .....	32
Tuition Refund .....	33
Typewriting Courses .....	52

## V

Veterans Readjustment Benefits Act of 1966 .....	33
Visitors in a Class .....	34
Vocational Rehabilitation .....	34

## W

War Orphans and Korean Veterans Benefits .....	34
Why You Should Attend Central Texas College .....	27
Withdrawal from College .....	40