

Central Texas College



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

— John Quincy Adams

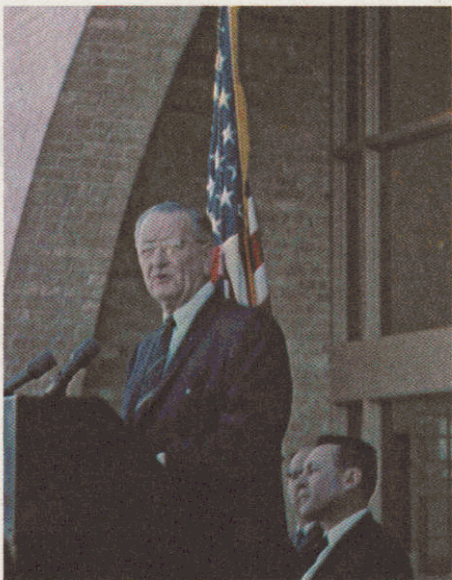
36TH PRESIDENT
OF THE UNITED
STATES
DEDICATES
CENTRAL TEXAS
COLLEGE

An excerpt from the speech delivered by the President of the United States, Lyndon Baines Johnson, at the dedication of this College Dec. 12, 1967:

"... just as our country lived through a great age of exploration in the last century, we have entered in this century another age. It will be remembered — I hope you are remembered with it — as the age of advancement, as the era of education.

"This college is proof of that.

"... we come here today to dedicate this college... to dedicate it forever to the service of the people, and to the progress of America."



An excerpt from the speech delivered by the President of Central Texas College, Dr. Luis M. Morton, Jr., introducing the President of the United States, 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
Fifth General Catalogue
1973-1975

**ACCREDITED BY
SOUTHERN ASSOCIATION OF COLLEGES AND SCHOOLS**

**APPROVED BY
COORDINATING BOARD,
TEXAS COLLEGE AND UNIVERSITY SYSTEM
TEXAS EDUCATION AGENCY**

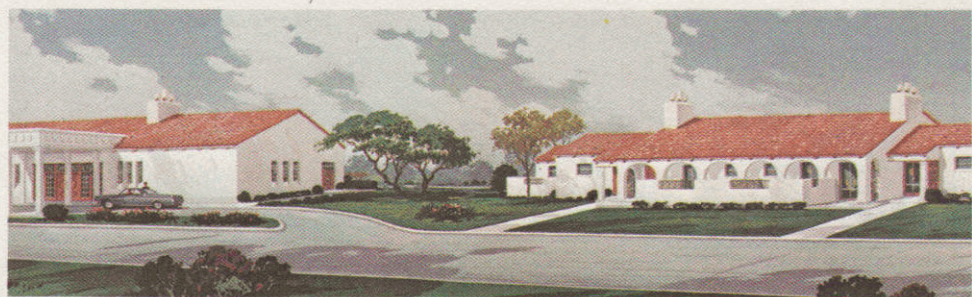
**Listed in
REPORT OF CREDIT GIVEN**

**by
AMERICAN ASSOCIATION OF COLLEGIATE
REGISTRARS AND ADMISSIONS OFFICERS**

**MEMBER OF
ASSOCIATION OF TEXAS COLLEGES AND UNIVERSITIES
AMERICAN ASSOCIATION OF COMMUNITY AND JUNIOR
COLLEGES
TEXAS ASSOCIATION OF JUNIOR COLLEGES
TEXAS ASSOCIATION OF PUBLIC JUNIOR COLLEGES
TEXAS ASSOCIATION OF COLLEGIATE REGISTRARS
AND ADMISSIONS OFFICERS**



Roy J. Smith Student Center



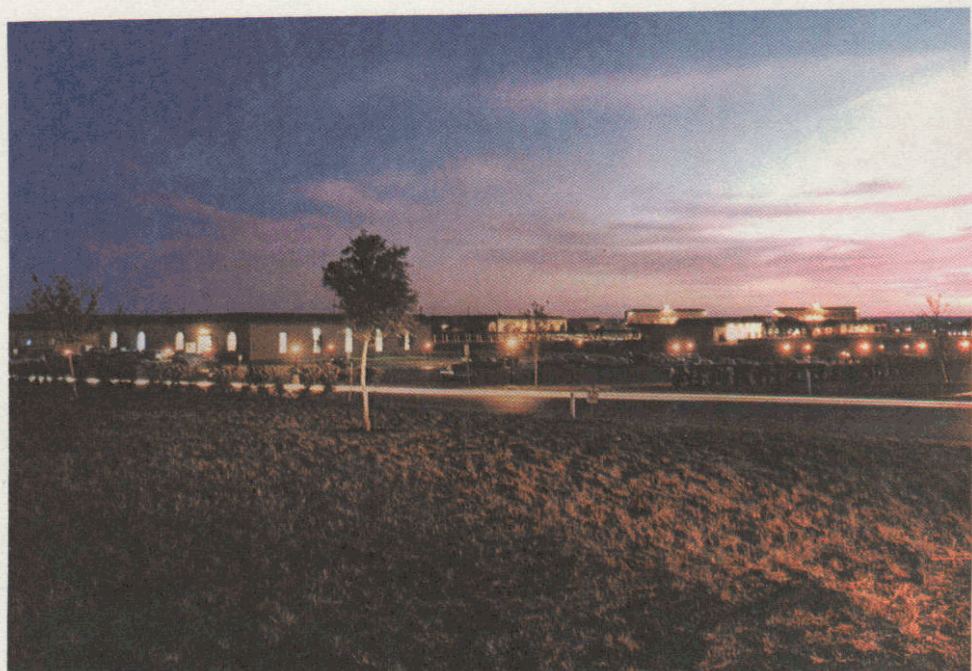
Apartment Complex for Married Students



A Resident Hall Bedroom



Dining Area
in the
Roy J. Smith Student Center



Evening College



Roy J. Smith Student Center

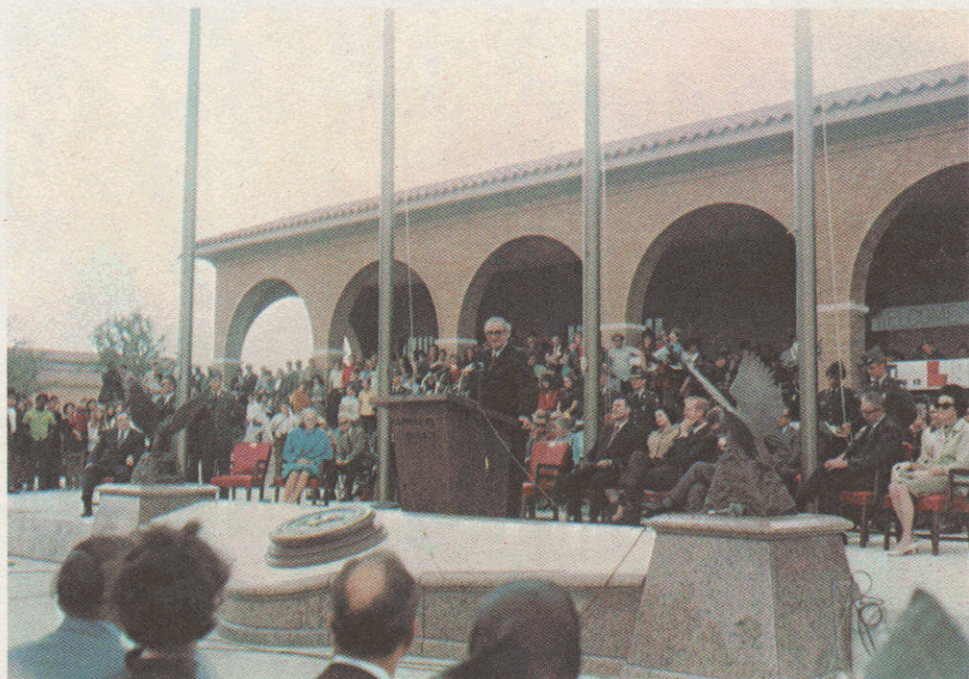


Artist's concept of the Advanced Technology Building



The Systems
Approach to
Learning





The 36th President of the United States, Lyndon Baines Johnson, addressed an enthusiastic crowd of students and guests during a dedication ceremony of a Presidential Memorial on Dec. 10, 1970. The Presidential Memorial is located in the center of the Central Texas College campus.



Members of the Board of Trustees

Members of the Board of Trustees of Central Texas College: Standing, left to right, Marvin A. Mickan, Copperas Cove; William S. Bigham, Killeen, President of the Board; Dr. Luis M. Morton, Jr., President of the College; and J. A. Darossett, Copperas Cove. Seated, left to right, Birt F. Wilkerson, Nolanville, Vice President; Mrs. Linus D. Frederick, Copperas Cove, Secretary; Dr. W. A. Roach, Killeen, Treasurer; and Guinn C. Fergus, Killeen.



A Message from the President

It is with great enthusiasm and sincere emotion that I welcome each of you to Central Texas College. The founding students contributed so much to this fresh and dynamic institution of higher learning. They began new traditions and showed their love and devotion for Central Texas College. This can be seen clearly by the many landmarks of beauty which they have left for you. Yet, 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.

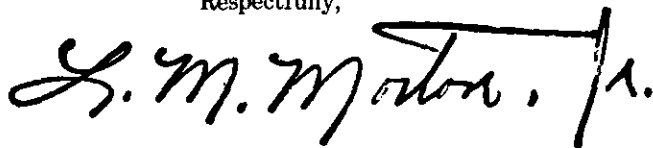
When the 36th President of the United States, Lyndon Baines Johnson, honored us by dedicating Central Texas College, he did so to the service "of all the people." By this he meant that it was the sacred duty of everyone associated with this institution to do everything in his power to help as many people 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 master 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

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Director of Guidance and Placement

TENTATIVE CALENDAR

1973-74

FALL SEMESTER

1973

July 16 to August 24	Pre-registration
August 28	Faculty In-Service Meetings
August 29	Faculty Departmental Meetings
August 29	Dormitory Students Report
August 30	Student Orientation for All New Day College Students
August 31	Registration
September 3	Labor Day Holiday
September 4	Instruction Begins
October 22	Veterans Day Holiday
November 22-25	Thanksgiving Holidays
November 26	Instruction Resumes
December 14	Instruction Ends
December 17-21	Final Examinations
December 21	Fall Semester Ends

SPRING SEMESTER

1974

January 10	Faculty In-Service Meetings
January 11	Faculty Departmental Meetings
January 14	Registration
January 16	Instruction Begins
April 15-19	Spring Vacation
April 22	Instruction Resumes
May 9-15	Final Examinations
May 18	Graduation Exercises

SUMMER SESSIONS

1974

First Six-Weeks and Twelve-Weeks Terms

May 31	Registration
June 3	Instruction Begins
July 4	Legal Holiday
July 9	Final Examinations for First Six-Weeks Term
July 9	First Six-Weeks Term Ends
August 14-15	Final Examinations for Twelve-Weeks Term
August 15	Twelve-Weeks Term Ends

Second Six-Weeks Term

July 9	Registration
July 10	Instruction Begins
August 14-15	Final Examinations for Second Six-Weeks Term
August 15	Second Six-Weeks Term Ends

FALL SEMESTER 1974

July 15	Pre-registration
August 27	Faculty In-Service Meetings
August 28	Faculty Departmental Meetings
August 28	Dormitory Students Report
August 29	Student Orientation for All New Day College Students
August 30	Registration
September 2	Labor Day
September 3	Instruction Begins
October 28	Veterans Day Holiday
November 28 to December 1	Thanksgiving Holidays
December 2	Instruction Resumes
December 13	Instruction Ends
December 16-20	Final Examinations
December 20	Fall Semester Ends

SPRING SEMESTER 1975

January 15	Faculty In-Service Meetings
January 16	Faculty Departmental Meetings
January 17	Registration
January 20	Instruction Begins
March 31 to April 4	Spring Vacation
April 7	Instruction Resumes
May 9-15	Final Examinations
May 17	Graduation Exercises

SUMMER SESSIONS 1975

First Six-Weeks and Twelve-Weeks Terms

May 30	Registration
June 2	Instruction Begins
July 4	Legal Holiday
July 8	Final Examinations for First Six-Weeks Term
August 13-14	Final Examinations for Twelve-Weeks Term
August 14	Twelve-Weeks Term Ends

Second Six-Weeks Term

July 9	Instruction Begins
August 14	Final Examinations for Second Six-Weeks Terms
August 14	Second Six-Weeks Term Ends

GENERAL INFORMATION

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 population in a ten-mile radius of Killeen is estimated to be 125,000. The 560-acre 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 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 was begun. A Telecommunications Building was added in 1967, two dormitories were added in 1968, and in 1970, the Lady Bird Johnson Center for the Performing Arts was completed.

Nursing facilities were completed in April, 1971. All plant facilities are air-conditioned.

Central Texas College opened its doors for the first time in September, 1967 and over 2,000 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.

Three years following the dedication of the College, a Citizen's Advisory Committee, under the direction of Mr. Roy J. Smith and Mr. Ted C. Connell, both of Killeen, presented a written request to the Board of Trustees of the College to honor the former President from Texas. How fitting it would be to build a memorial to the thirty-sixth President of the United States, who earlier had remarked to a crowd of over 30,000 at Central Texas College in 1967, that Central Texas College was proof of the fact that America had entered the age of education in this century.

Mr. Roy J. Smith reminded the Board of Trustees that, "It is a spontaneous expression of appreciation by the people of the area to-

ward the first United States President from Texas." Mr. Smith went on to say, "The Lyndon Baines Johnson Memorial would be a gift from the people of Central Texas."

It was after the local citizens' request to build the Presidential Memorial that the Board passed a motion that the new Fine Arts Building be dedicated to Lady Bird Johnson. It was the former First Lady who began a very dynamic program of beautification throughout America. The building is a reminder of Mrs. Johnson's interest and concern for beautifying America.

On a windy December morning almost three years to the date, December 10, 1970, to be exact, Former President Johnson and Lady Bird Johnson returned to Central Texas College for dedication ceremonies in their honor. They were greeted by friendly faces, outstretched hands, and an obvious warmth from young and old alike. The Presidential Memorial, constructed on red granite and white marble with bronze lettering, was unveiled by Former President Johnson. The inscription of the Memorial reads, "History shall record that Lyndon Baines Johnson, 36th President of the United States, was the good shepherd of his people . . . he dedicated his life to helping the poor, the neglected, the sick, the uneducated, and all those who sought equality, opportunity, and justice." The Memorial is located in the center of the College campus and is 25 feet long and 4 feet high. The Lady Bird Johnson Center for the Performing Arts is located only a few feet away from the Lyndon Baines Johnson Presidential Memorial. The beautiful Center contains a versatile main assembly and exhibition area with a continental seating arrangement for a variety of functions as well as classrooms and offices for the art and music departments. Millions of people will benefit from the Central Texas College educational radio and television stations, KNCT-TV-FM, located within this building.

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 are necessarily both flexible and extensive.

In order to insure the fullest service possible to the civilians of the surrounding area and to the personnel of the large military installation adjacent to the campus, the educational programs of the College are geared to meet the needs of full-time as well as part-time civilian and military students. In order to accommodate the diverse educational needs of both the civilian and military sectors, Central Texas College necessarily provides an uncommonly greater variety of educational programs than might be expected.

The objective of Central Texas College is to become a total learning environment, encompassing traditional and non-traditional forms of education. The guiding principle of the total learning environment is

the College's commitment to meet the real educational needs of all the people. The College proposes to make available in its total learning environment the opportunity to succeed in life, which is the birthright of every American. This is why Central Texas College is dedicated "to the service of all the people . . . "

Central Texas College has been held to be and presently is in compliance with the Title VI of the Civil Rights Act of 1964, as amended. 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, religion, ancestry, sex, national origin, 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 educational 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 Education** — The College provides courses which qualify students in vocational and/or technical fields, and equips them for occupational competency.

4. **Baccalaureate and Graduate Education** — Through cooperative agreements with other institutions of higher learning, the College makes available a bachelor of applied science degree and a master of science degree.

5. **Area Service** — The College provides life-long education for adults, opportunities for cultural enrichment, special interest courses, lectures, and meetings designed to satisfy the special needs of business, of the military, and of area groups.

6. **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.

SERVICEMEN'S OPPORTUNITY COLLEGE

Because of its efforts to serve the educational needs of servicemen, Central Texas College has been designated a Servicemen's Opportunity College by the American Association of Community and Junior Colleges.

The College recognizes that the serviceman's educational needs are unique and that he often acquires education through non-traditional methods and that college credit should be granted for professionally validated education acquired in non-traditional methods. Among the non-traditional methods of earning credits applicable toward a degree at Central Texas College are:

1. USAFI Courses
2. College Level Examination Program (CLEP) — Both the General Examination and the Subject Examinations
3. Institutional Challenge Examinations
4. Credit for Military Schools attended as recommended by the American Council on Education
5. Credit for Physical Education for military service

Central Texas College accepts credits earned at other accredited institutions of higher learning which are applicable to the degree program of the student. Through various combinations of these modes of non-traditional learning and transfer credits, a student may earn the major portion of the required credits for an associate degree. A minimum of 12 hours must be completed at Central Texas College, but not necessarily the last 12 hours of course work.

At any point in his post-secondary educational career, usually when he is initially enrolled at Central Texas College, a serviceman may request Central Texas College to designate a college advisor who will prepare a course of study for him for his stated educational objective. The advisor will then continue to guide the serviceman's educational planning when he is forced to relocate and attend other institutions. As long as he is being guided by the counselor through correspondence he will be allowed to transfer appropriate credits back to Central Texas College. Central Texas College will, in effect, function as a repository for all academic records of the serviceman and will award him the appropriate certificate or degree when he has completed the program of study outlined originally by the counselor, and if he has earned a minimum of 12 hours credit in residence at Central Texas College.

TRANSFER OF CREDITS

Central Texas College is accredited by the Southern Association of Colleges and Schools. Credits will transfer in accordance with standard practices and degree requirements of other institutions.

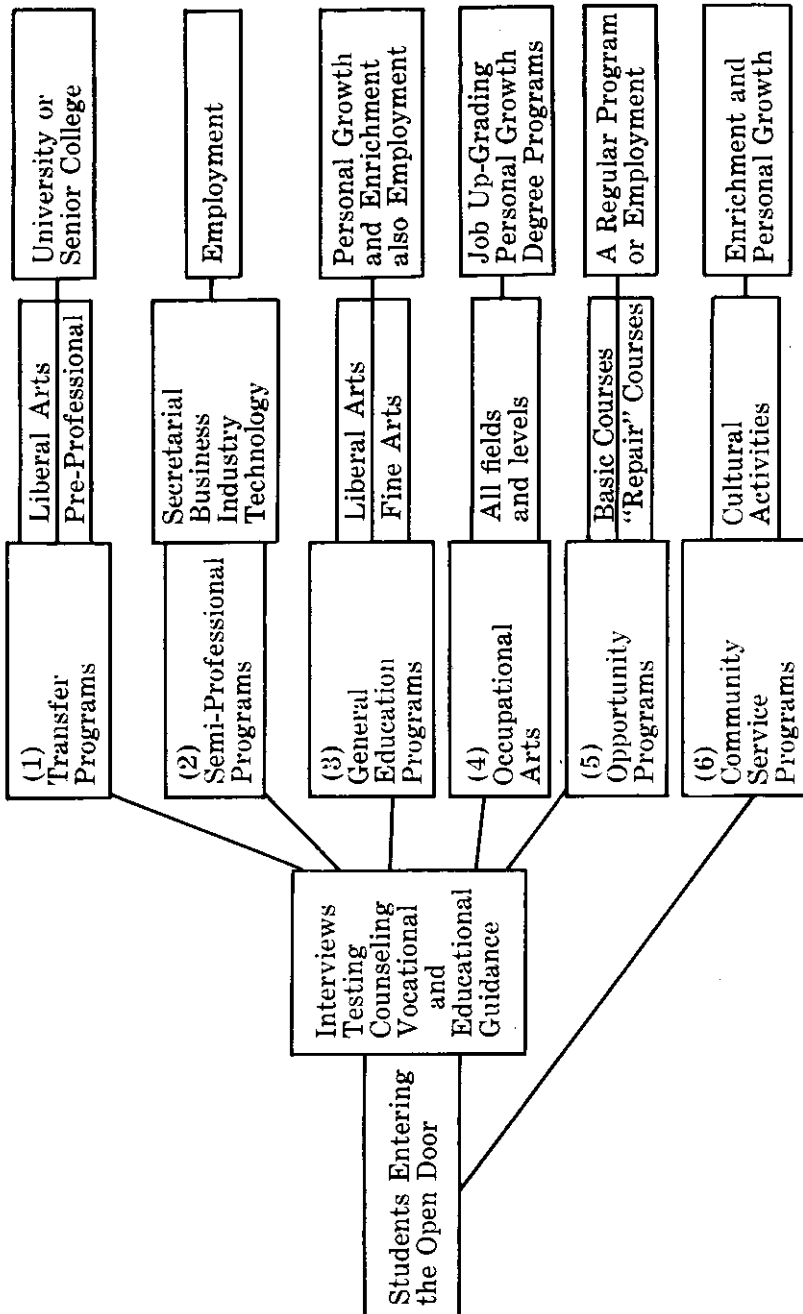
Precautions will be taken to see that each student is enrolled for the proper courses. Although the ultimate responsibility rests with each

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.

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 and counselors will give students 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**



ADMISSION REQUIREMENTS

Students who hold diplomas from accredited secondary schools or GED equivalency certificates 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.

RECOMMENDED HIGH SCHOOL PROGRAM*

Subjects	Freshman	Soph.	Junior	Senior
ENGLISH	English	English	English	English
SOCIAL STUDIES		Elective	U.S. History	
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.

G.E.D. TEST

The General Educational Development Test will be administered in the Office of Student Services for persons over 18 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 Records Office at Central

Texas College. Do this at least two weeks before you come to register.

2. Arrange to take either the ACT (C.T.C. Code No. 4081) or the SAT (CEEB) (C.T.C. Code No. R6130) 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. Students should take the examination as early as possible so that scores may be used for guidance at registration.
3. Obtain an application for admission, complete it, and return it to the Records Office.
4. Make an appointment with the Office of Student Services 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 Dean of Student Services and will be on probationary status until all requirements have been met.

HEALTH CERTIFICATE

Recognizing that good health and health practices contribute 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. In addition, the student must present proof that he or she has received certain immunizations as required by the state of Texas. Forms for this purpose requiring validation by a recognized health official are supplied by the College. Personal hygiene requirements include proper grooming and the wearing of clean clothes and shoes.

CREDITS FOR MILITARY EDUCATIONAL EXPERIENCE

Military personnel who have completed two years of active military service and have completed twelve (12) semester hours at Central Texas College with a 2.00 (C) overall grade point average may request credit for the four hour general physical education requirement in their curriculum. This request must be submitted to the Office of Student Services with verification of the required military service (DD214 or the equivalent). After successful completion of 12 semester hours with a 2.00 (C) overall grade point average, service connected educational experience and credits received from formal service schools listed in the 1968 **American Council on Education, A Guide to the Evaluation of Educational Experiences in the Armed Services**, will be used to evaluate any additional college credits that might be applied toward a degree plan. Three other military testing programs

may be used if adequate scores have been achieved on the test in the past six years. These tests are: U.S.A.F.I. Comprehensive College Tests, General Examinations, College Level General Educational Development (G.E.D.) Test and the newer College Level Examination Program (C.L.E.P.). Any student seeking credit for courses under the above criteria should present documented credentials prior to taking a course for which a prerequisite is required. Student applicants for advanced standing tests must present their credentials to the Office of Student Services and must receive prior approval of either the Technical-Vocational Manager or the Academic Chairman for substitution of the courses in their degree plan at Central Texas College.

CREDIT BY EXAMINATION

In order to be eligible for credit by examination, a student must be enrolled either full-time or part-time in a certificate or degree program with Central Texas College.

To obtain credit, the student must pass the examination with a grade of "A" or "B" and complete or have completed twelve (12) semester hours of course work at Central Texas College with a 2.00 grade point average.

Students who believe that they are eligible for credit by examination should make a request to the Dean of Student Services.

American College Testing Program Credit

Central Texas College will award to entering freshmen students who submit scores before enrollment at Central Texas College, for superior achievement on the A.C.T., a maximum of 13 semester hours. Credits may be earned in Engl 131, 132, Math 131, and Biol 141. After completion of 12 semester hours at Central Texas College with a minimum grade point average of "C", these credits will be entered on the official record of the student. Students are not permitted to receive credit by examination in courses for which they have previously been enrolled.

DEGREES CONFERRED

Central Texas College will confer the degrees of Associate in Arts, Associate in Science, Associate in Applied Science, and Associate in General Education.*

*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.

GRADUATION WITH HONORS

Candidates for degrees from Central Texas College may graduate with **highest honors** or **honors** based upon the following criteria:

1. To graduate with **honors** a candidate must have a 3.5 grade point average on a 4.0 scale with no grade below "B" on all course work taken.
2. In computing the candidate's grade point average, the grades in all courses taken at Central Texas College and all courses taken at other accredited institutions of higher learning are included.
3. In any graduating class the student with the highest grade point average above 3.5 will be designated as graduating with **highest honors**.
4. Formal public recognition for graduation with **honors** or **highest honors** is conferred only when the student participates in the formal commencement ceremonies.

DEGREE REQUIREMENTS

Associate in Arts

Complete a minimum 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 overall grade-point average of 2.0 ("C" average).
9. Meet all other college requirements.

Associate in Science

Complete a minimum 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. Four courses of science.

5. Six semester hours of math.
6. Four semesters 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 overall grade-point average of 2.0 ("C" average).
10. Meet all other college requirements.

Associate in General Education

Complete a minimum of sixty-one semester hours in courses chosen from the total curricular offerings of the College. Selections should include courses from the social sciences, humanities, communications, and sciences and may include courses from the vocational and technical curricula. A minimum overall gradepoint average of 2.0 ("C") is required. A minimum of twelve semester hours must be completed at Central Texas College.

Associate in Applied Science

The Associate in Applied Science Degree will be awarded to students who meet curricular requirements for two-year technology programs. A minimum overall grade-point average of 2.0 ("C") is required.

Certificate of Completion

A Certificate of Completion will be awarded to students who fulfill the curricular requirements of special courses and programs.

GRADUATION EXERCISES

All students applying for a degree or certificate to be awarded during or at the end of the Spring Semester must participate in practices for and the actual graduation exercises in order to be granted the diploma.

In cases of extreme hardship, permission may be granted by the Dean of Student Services to be excused from the graduation ceremony and practices. If the student feels that he has an extreme hardship situation which will prevent him from attending graduation, he must submit in writing a request to be excused from graduation to the Dean of Student Services. This must be done three weeks prior to the graduation exercise date. He must state the reasons that he would not be able to participate in the graduation ceremony. Students not participating in the graduation ceremony will not be recognized as graduation "in absentia".

TUITION AND FEE SCHEDULE 1973-1974 FISCAL YEAR

TUITION

Semester Credit Hours	Resident of Texas	Non- Resident of Texas
1	\$25.00	\$ 75.00
2	25.00	90.00
3	25.00	100.00
4	30.00	115.00
5	36.00	140.00
6	44.00	150.00
7	52.00	175.00
8	60.00	200.00
9	64.00	225.00
10	68.00	235.00
11	72.00	245.00
12	75.00	250.00
13	77.00	260.00
14	81.00	270.00
15	85.00	280.00
16	89.00	290.00
17	93.00	300.00
18	95.00	310.00
Credit Bank Fee.....		\$12.50

INDIVIDUAL INSTRUCTION

MUSIC:

1 Semester Credit Hour.....	\$35.00
2 Semester Credit Hours.....	55.00
3 Semester Credit Hours.....	70.00

CAREER PILOT:

<i>Course</i>	<i>Tuition</i>
CP-111	\$ 230.00
CP-130	470.00
CP-134	600.00
CP-234	655.00
CP-330	600.00
CP-334	180.00
CP-336	530.00
CP-338	390.00
CP-335	1,100.00
CP-234 A	474.00

WELDING..... \$25.00

PHYSICAL EDUCATION

Bowling \$20.00

Equitation	55.00
All Others	8.00
LABORATORY FEE (in all courses requiring use of laboratory other than listed)	\$8.00
STUDENT SERVICES FEE (Per Semester)	
Students Taking 9 hours or more	\$11.00
Students taking less than 9 hours.....	1.00
Graduation Fee.....	10.00
OTHER FEES (Per Year)	
Property Deposit (refundable when student withdraws from Central Texas College. This deposit is required of every student enrolled for more than 9 semester hours).....	\$10.00
Dormitory Property Deposit (those students living in dormitories)	25.00
ROOM AND BOARD	
Dormitory Rental (Per Semester)	\$270.00
Meal Tickets (3 books required of dormitory students per semester).....	236.25
PRE-COLLEGE MUSIC	
One, 30 minute lesson per week (Per Semester).....	\$115.00
One 45 minute lesson per week (Per Semester).....	150.00

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 sixth class day, i.e., until the College offices close on the sixth class day and thereafter,
2. A refund of 20% will be made through the twelfth class day.
3. No refund will be made after the end of the twelfth class day.
4. A request for refund must be completed in the Office of the Dean of Student Services. 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 refund period for fall and spring semesters as stated above.

FINANCIAL AID PROGRAMS

Central Texas College participates in numerous financial aid programs designed to assist students who show serious interest in their education. We believe that an effective program for student aid must be administered in such a way as to be consonant with the aims and purposes of the college, must advance institutional goals, and must be in harmony with institutional values. Students who participate in the

various programs for financial aid must comply with the rules and regulations of the College to retain eligibility for the programs.

Central Texas College participates in the following financial assistance programs:

- National Direct Student Loan
- Federal Insured Student Loans
- Nursing Student Loan
- Law Enforcement Loan
- Educational Opportunity Grant
- Nursing Student Scholarship
- Law Enforcement Grant
- Federal Work-Study Program
- The Connally-Carillo Act
- Institutional Scholarships
- Hinson-Hazlewood Student Loans

Inquiries concerning student financial aid should be sent to:

- Office of Student Financial Aid
- Central Texas College
- Highway 190 West
- Killeen, Texas 76541

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 Acts 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 Rehabilitation Commission 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 Commission. Application for this assistance should be made to the nearest Rehabilitation Office.

*RESIDENCE STATUS

It is the duty of each student to register under the proper residence and pay the correct tuition. The explanation below of what constitutes a non-resident and a resident is intended to assist the student in properly determining whether or not he qualifies as a resident of the State for tuition purposes. If there is any possible question as to whether he qualifies as a resident of Texas, the student should confer with the Dean of Student Services.

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 Coordinating Board 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:

1.
 - a. *An individual, under twenty-one (21) years of age, who is living away from his family and whose family resides in another state or has not resided in Texas for the 12-month period immediately preceding the date of registration shall be classified as a nonresident student;*
 - b. *An individual twenty-one (21) years of age or under whose family has not resided in Texas for the 12-month period immediately preceding the date of registration shall be classified as a nonresident student regardless of whether he has become the legal ward of residents of Texas or has been adopted by residents of Texas while he is attending an educational institution in Texas, or within a 12-month period before his attendance, or under circumstances indicating that the guardianship or adoption was for the purpose of obtaining status as a resident student;*
 - c. *An individual 21 years of age or under whose parents were formerly residents of Texas is entitled to pay the resident tuition fee following the parents' change of legal residence to another state, as long as the individual remains continuously enrolled in a regular session in a state-supported institution of higher education.*

*Due to recent changes in State Law references to twenty-one (21) years of age should be replaced by eighteen (18) years of age.

2.

- a. *An individual twenty-one (21) years of age or over who has come from outside Texas and who is gainfully employed in Texas for a 12-month period immediately preceding registration in an educational institution shall be classified as a resident student as long as he continues to maintain a legal residence in Texas; and*
- b. *An individual twenty-one (21) years of age or over who resides out of the state or who has come from outside Texas and who registers in an educational institution before having resided in Texas for a 12-month period shall be classified as a nonresident student.*
- c. *A nonresident student classification is presumed to be correct as long as the residence of the individual in the state is primarily for the purpose of attending an educational institution. After residing in Texas for at least twelve (12) months, a nonresident student may be reclassified as a resident student as provided in the rules and regulations adopted by the Coordinating Board, Texas College and University System. Any individual reclassified as a resident student is entitled to pay the tuition fee for a resident of Texas at any subsequent registration as long as he continues to maintain his legal residence in Texas.*

3.

- a. *A nonresident who marries and remains married to a resident of Texas, classified as such under this Act at the time of the marriage and at the time the nonresident registers, is entitled to pay the resident tuition fee regardless of the length of time he has lived in Texas, and any student who is a resident of Texas who marries a nonresident is entitled to pay the resident tuition fee as long as he does not adopt the legal residence of the spouse in another state.*

4.

- a. *An officer, enlisted man or woman, selectee or draftee of the Army, Army Reserve, Army National Guard, Air National Guard, Texas State Guard, Air Force, Air Force Reserve, Navy, Navy Reserve, Marine Corps, Marine Corps Reserve, Coast Guard, or Coast Guard Reserve of the United States, who is assigned to duty in Texas is entitled to register himself, his spouse, and their children in a state institution of higher education by paying the tuition fee and other fees or charges required of Texas residents, without regard to the length of time he has been assigned to duty or resided within the state.*

- b. *As long as they reside continuously in Texas, the spouse and children of a member of the Armed Forces of the United States who has been assigned to duty elsewhere immediately following assignment to duty in Texas are entitled to pay the tuition fees and other fees or charges provided for Texas residents.*
 - c. *The spouse and children of a member of the Armed Forces of the United States who dies or is killed are entitled to pay the resident tuition fee, if the wife and children become residents of Texas within 60 days of the date of death.*
 - d. *If a member of the Armed Forces of the United States is stationed outside Texas and his spouse and children establish residence in Texas by residing in Texas and by filing with the Texas institution of higher education at which they plan to register a letter of intent to establish residence in Texas, the institution of higher education shall permit the spouse and children to pay the tuition, fees, and other charges provided for Texas residents without regard to length of time that they have resided within the State.*
- 5. *A teacher, professor, or other employees of a Texas institution of higher education is entitled to register himself, his spouse, and their children in a state institution of higher education by paying the tuition fee and other fees or charges required for Texas residents without regard to the length of time he has resided in Texas. A teacher, professor, or other employee of a Texas institution of higher education is any person employed at least one-half time on a regular monthly salary basis by a state institution of higher education.*
- 6. *An alien who is living in this country under a visa permitting permanent residence or who has filed with the proper Federal immigration authorities a declaration of intention to become a citizen has the same privilege of qualifying for resident status for fee purposes under this Act as has a citizen of the United States. A resident alien residing in a junior college district located immediately adjacent to Texas boundary lines shall be charged the resident tuition by that junior college.*
- 7. *The governing board of an institution of higher education may assess and collect from each nonresident student who fails to comply with the rules and regulations of the boards concerning nonresident fees a penalty not to exceed \$10 a semester.*

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.

When a student drops a course, he is not entitled to remain in the class on an unofficial basis. Only those students who are officially enrolled have the privilege of attending classes. In special circumstances designed to help deserving students, the instructor and the Dean of Student Services may make exceptions to this policy.

VISITORS IN A CLASS

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

ACADEMIC LOAD

Standard Load: The actual number of semester hours taken by a full-time student will vary with the number of one-hour courses and laboratory courses taken. While the standard load is considered to be fifteen semester hours, the actual hours for five solid courses plus physical education might be seventeen or eighteen semester hours. The normal load for completing degree requirements in two school years is five 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 courses of three 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.

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 his division.

Minimum Load: Since part-time as well as full-time students are welcome at Central Texas 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.

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.

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.

EVENING COLLEGE

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

SUMMER SESSION

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

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

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.

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.

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" or "3" 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.

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 Dean of Student Services. 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" or "F".

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.

EXAMINATIONS

Semester examinations are given at the end of each semester or summer term in all subjects. During the last week of classes, 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 of his division because of personal illness or some other emergency. Otherwise, the student receives a grade of "F" for the course. The Dean 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 postponed 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 eighteen years of age and not residing legally with their parents and students eighteen years of age or older may request that their grades be mailed to themselves. Requests from students under eighteen years of age require approval of the Dean of Student Services.

SCHOLASTIC HONESTY

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. No unexcused absences of "cuts" are allowed. You are responsible for all class work covered during an absence from class, even in cases where you were able to satisfy the instructor that the absence was unavoidable. Failure to attend class regularly may result in administrative withdrawal of a student from a class or from College. Excusable absences are those resulting from personal illness, emergencies arising within the family, official school-sponsored trips (approved by the Dean of that division), and military duties or orders requiring brief absences.

Students are expected to be in class on time.

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.

Instructors will have the responsibility of notifying students when they are accumulating too many unexcused absences.

After the instructor submits the form to the Office of Student Services requesting an administrative drop because of unexcused absences, the instructor will receive a copy of the letter which is sent to the student or parents.

2. An administrative drop is initiated after a student has six consecutive or ten total unexcused absences. Absences are computed on class hours of instruction. Example: A class meeting for 1½ hours results in 1½ absences.
3. The Dean of a division will not grant excuses for absences, but students may be readmitted to class by the Dean. However his absence(s) will remain unexcused.

SCHOLASTIC STANDARDS

Each student is expected to know his academic status at all times. Each student is responsible for knowing whether he has passed the minimum required work and whether he is eligible to continue in the College. An ineligible student who nevertheless registers in the College shall be dropped, and the student shall not receive special consideration on his plea of lack of knowledge of his scholastic status. Student scholastic probation or suspension will be printed on the semester grade report. To be in good standing, a student is required to maintain at least an overall semester average of 1.8. Those who fall below the 1.8 average will be placed on academic probation.

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.

SCHOLASTIC PROBATION

A student at Central Texas College must achieve a 1.8 semester grade point average to avoid being placed on probationary status. If placed on probationary status, then the student must the following semester achieve a 1.8 average. If the student is placed on academic probation he may be required to have a monthly conference with an academic counselor. If the student's performance should improve to the required standards upon the completion of one full semester, he will be removed from the probation status. Failure to achieve a 1.8 grade point average will result in the student's being 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's being suspended 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 suspended from the College for four regular semesters. The student must realize that he still must achieve a 2.0 accumulative grade point average to qualify for graduation and that any course grade below "C" is normally not transferable to four-year institutions.

Any Central Texas College student failing to achieve a 1.0 semester grade point average during any given semester will be suspended immediately from Central Texas College for one regular semester and will be placed on academic probation when readmitted to the College.

Residence hall students are required to be full-time students (enrolled in twelve or more semester hours).

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

GRADES AND POINT AVERAGES

Grading at Central Texas College is as follows:

Numerical Value	Grade
90-100	A — Superior (4 points per semester hour)
80- 89	B — Above Average (3 points per semester hour)
70- 79	C — Average (2 points per semester hour)
60- 69	*D — Passing, but Unsatisfactory (1 point per semester hour)
0- 59	F — Failure (0 points per semester hour)
	**I — Incomplete
	W — Withdrawn
	N — No-Credit

The grade point average of any student at any point may be determined by dividing the hours accumulated by the student in courses for which he received a grade other than "W", "I", or "N" into the total accumulated quality points for those courses. In the case of repeated courses, both hours and quality points for these courses will be considered in the final grade point average.

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, or F, 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 Dean of Student Services 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.

*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.

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.

STUDENT RECORDS AND INFORMATION

Student records and information contained in the student's file at Central Texas College is considered to be privileged information and cannot be released to persons outside the College with the exception of state or federal law enforcement agencies without the written permission of the student.

STUDENT LIFE

Social and cultural activities play an important part in the life of the college student. Oftentimes, classroom instruction can be supplemented and enhanced by a well-developed program of activities. Central Texas College believes that in order to develop good qualities of leadership and to help create good fellowship and social goodwill, students should be given the opportunity to develop to their full potential.

To this purpose then, some 21 clubs and organizations have been officially approved. One of the paramount organizations, the Council of Student Representatives uses both resources and fees of the student body to finance and plan many of the College's activities. In addition to the Council of Student Representatives, clubs include religious, political, social, and recreational organizations. Activities of the various clubs and organizations are coordinated at weekly or bi-monthly meetings.

LIBRARY

The Oveta Culp Hobby Memorial Library is one of the outstanding junior college libraries in the nation. Over 41,000 volumes are housed in this beautifully appointed building which was dedicated to a native of Killeen and the first Secretary of the Department of Health, Education and Welfare. President Lyndon B. Johnson joined the College Board President, William S. Bigham, in the dedication to Mrs. Oveta Culp Hobby. The building has been scientifically planned and the volumes carefully selected to compliment the instructional program of the College. 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 establish the strong desire of Central Texas College to have a superior academic program.

ATHLETIC PROGRAM

Tennis is the only intercollegiate competitive sport at Central Texas College. In June 1973 the Golden Eagles won the national championship in singles and doubles at the National Junior College Tournament at Ocala, Florida.

Other athletic intramural programs have been organized for both men and women. They include football, basketball, volleyball, bowling, table tennis, and tennis. Teams compete for recognition and trophies awarded by the Office of Student Activities.

All athletic facilities in the College gymnasium remain open daily in order to serve the resident students at Central Texas College.

STUDENT CENTER

Central Texas College has a beautiful Student Center, complete with a bookstore, dining area and inner landscaped court, snack bar, a carpeted conversation area with wood-burning fireplace, beamed ceiling, and color television.

This building, which provides the setting for many student activities, also becomes a gathering place for students during leisure time. It is certainly one of the most popular buildings on campus.

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. This deposit is not refundable after 60 days prior to the beginning of the semester for which it was first intended. A complete food service is available in the luxurious Roy J. Smith Student Center. Additional information is available from the Dean of Student Services.

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 suspension from the College.

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

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.

STUDENT CONDUCT

A student who enrolls at Central Texas College neither loses the rights nor escapes the responsibilities of citizenship. By enrolling in the College, he signifies acceptance of the privileges and regulations and policies established by the Central Texas College Board of Trustees and agrees to abide by all regulations and standards established by the College. It must be clearly understood that the College Administration is charged with the responsibility of discipline and will implement stated disciplinary procedures to require students of Central Texas College to conduct themselves in a manner consistent with the standards of the College.

Harassment

Harassment, whether verbal or by action, by any student enrolled at Central Texas College, of any member of the student body, faculty, administration, or any other college employee will be considered a serious breach of discipline and shall be treated accordingly.

Any action, whether in the classroom, on the campus, or at a school approved activity, subjecting a person to humiliation, indignity, discomfort, or that interferes with any process in which the College is engaged may be considered harassment.

Alcohol, Narcotics, and Drugs

Students are not to use intoxicating beverages, narcotics, or hallucinatory drugs on campus or while attending any school-sponsored activity. Any student on campus or at a school-sponsored function who is under the influence or in possession of any of these items will be subject to disciplinary dismissal from the College.

Anyone found in possession of, using, or distributing illegal drugs or aiding those involved in such activities will be immediately subject to public expulsion from the College. Notice of this action will be placed on the student's transcript and this information will be relayed immediately to the proper civil and/or military authorities.

It is the responsibility of any student who has knowledge of such activity to report it immediately to the Dean of Student Services.

Hazing

Students are not to haze other students. Any acts that might intimidate a student or subject him to indignity or humiliation will be considered hazing.

Falsification of Records

Students who knowingly falsify any official College record are subject to disciplinary action which may include suspension from the College.

Students falsifying admission records may be denied admission to the College.

Firearms and Weapons

Only official security personnel are allowed to be armed. Firearms or weapons of any kind are prohibited anywhere on Central Texas College campus. Anyone found in violation of this rule will receive appropriate 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. Shoes are included in appropriate dress. Personal hygiene and grooming must conform to standards of cleanliness and neatness acceptable in polite society. See Student Handbook for additional guidelines.

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 and the general environment required for meeting the educational philosophy and objectives of the College.

STUDENT DISCIPLINE

Students are admitted to Central Texas College for the purpose of educational, social, and personal enhancement. As students, they have rights, privileges, duties, and responsibilities, as prescribed by State and Federal Constitutions and statutes and policies of the governing Board of the institution.

In all orderly democratic societies, citizens enjoy certain freedoms and privileges prescribed and protected by society for the benefit of all. Likewise, students at Central Texas College enjoy certain freedoms and privileges prescribed and protected for the maintenance of an orderly environment conducive to the fulfillment of the aims, objectives, and purposes of the institution.

Organized societies operate by laws, regulations, ethical and moral codes of conduct, and mutual respect for the role, authority, and responsibility of each segment within the society. The college campus exists for the purpose of providing a place where students may acquire

the knowledge, understanding, judgment, and maturity necessary to function as effective and well-adjusted members of society. A college which fails to provide this atmosphere for the learning experience that will enable its students to achieve these qualities has failed both the society which provides for its existence and the students who have sought its services.

Central Texas College is dedicated and committed to fulfilling its mission in society. All students who enroll are expected to understand, respect, and support the role and purposes of the College. To teach students to become mature, capable, and productive members of society, the College has planned and organized every aspect of its operation to provide for an atmosphere conducive to the learning experience. This is true of student organizations, student social functions extra-curricular activities, and even the disciplinary procedure.

It is the desire and wish of College Board members, administrators, and faculty that the necessity for disciplinary procedures could be eliminated. Unfortunately, as in all societies, there are some who refuse to accept and understand the necessity for orderly and organized procedures and for regulations designed to protect the interests and welfare of the institution itself as well as the majority of its members.

For those few students who fail to understand and accept their role in an educational institution, the College has prescribed, in the Student Handbook, procedures for counseling and disciplinary action which are designed to help the students in every way possible. In essence, the disciplinary procedures are a part of the learning process for students, and students will be suspended or expelled from the College only if they fail to respond positively to disciplinary procedures.

SUMMONS TO ADMINISTRATIVE OFFICES

On some occasions it will be necessary for a faculty member, counselor, or administrative official to contact an individual student. 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.

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.

PARKING REGULATIONS

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

CURRICULA

The curricula presented 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.

ALTHOUGH ACADEMIC COUNSELING IS AVAILABLE, IT WILL 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 REQUIRED COURSES AND THEIR PREREQUISITES.

CENTRAL TEXAS COLLEGE

PROGRAMS OF STUDY

Agriculture	48
Air Conditioning.....	51
Airline Stewardess.....	50
Art.....	54
Automotive.....	52
Business Administration.....	56
Career Pilot.....	65
Communications	68
Computer Science.....	74
Drafting and Design	82
Education.....	78
Electronics	80
Engineering.....	82
Environmental Control.....	85
Farm and Ranch Management.....	48
Foreign Language.....	86
Law Enforcement	88
Machine Tools	90
Mathematics.....	91
Music.....	93
Nursing.....	97
Office Management.....	57
Photography.....	99
Physical Education.....	100
Restaurant Management.....	58
Sciences	102
Social Sciences	106
Telecommunications.....	110
Pre-Professional Programs	112

ADULT EDUCATION PROGRAM

Special Interest Courses	116
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PROGRAMS OF STUDY

AGRICULTURE

General Agriculture Curriculum

Freshman Year

First Semester Subject	Hours	Second Semester Subject	Hours
Biology 141	4	Biology 142	4
English 131	3	English 132	3
History 131	3	History 132	3
Animal Husbandry 131	3	Poultry Science 136	3
Agronomy 132	3	Elective	3
Physical Education	1	Physical Education	1
Psychology 111	1		
	<hr/>		<hr/>
	18		17

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
Chemistry 141	4	Chemistry 142	4
Economics 231	3	Economics 232	3
Government 231	3	Government 232	3
Entomology 234	3	*Elective	3
Mathematics 131	3	*Elective	3
Physical Education	1	Physical Education	1
	<hr/>		<hr/>
	17		17

Farm and Ranch Management Curriculum

Freshman Year

First Semester Subject	Hours	Second Semester Subject	Hours
Animal Husbandry 131	3	Range Management 134	3
Agronomy 132	3	Soil Science 135	3
Wildlife Management 133	3	Poultry Science 136	3
Biology 141	4	Biology 142	4
Approved English	3	Approved Elective	3
Physical Education	1	Physical Education	1
Psychology 111	1		
	<hr/>		<hr/>
	18		17

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
Farm Mechanics 231	3	Farm Mechanics 232	3
Feeds and Feeding 233	3	Horticulture 235	3
Entomology 234	3	Livestock Marketing 236	3
Economics 231	3	Economics 232	3
Business Math 133	3	Approved Elective	3
Physical Education	1	Physical Education	1
	<hr/>		<hr/>
	16		16

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

COURSE DESCRIPTIONS FOR AGRICULTURE

131. Animal Husbandry. (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.

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.

133. Wildlife 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 cultural life. An account of what has happened to North American Wildlife with considerations of specific plans and methods for its rehabilitation, maintenance, and increase.

134. Range Management. (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.

135. Soil Science. (3-2). Credit 3.

A basic course in soils in which principles of the physical, chemical, and biological properties of the soil are covered. Soil fertility and testing are emphasized.

136. Poultry Science. (3-2). Credit 3.

A basic course in poultry production involving breeds, breeding, selection, feeding, care, and management. Marketing is emphasized because it is a specialized industry.

231. Farm Mechanics. (3-3). Credit 3.

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

232. Farm Mechanics. (3-3). 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.

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

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

234. 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.

235. 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.

236. Livestock Marketing. (3-0). 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. Use of farm and ranch records and accounts.

AIRLINE STEWARDESS

This curriculum gives the student preparation for a career with the airlines as a stewardess, secretary, reservations clerk, and other related positions. The curriculum is not designed to develop a finished product because each company has its own specific training program. The Central Texas College Airline Stewardess Curriculum is designed to provide students with general knowledge and competence which will give them a competitive advantage and enhance their chances of employment. Any student who desires to be a stewardess must meet the specific requirement of the company.

Airline Stewardess Curriculum

Freshman Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Approved English.....	3	Approved English.....	3
Aircraft Science 131	3	Meteorology 232.....	3
Foreign Language 141	4	Foreign Language 142	4
Psychology 231.....	3	*Typewriting	3
*Typewriting	3	Elective.....	3
Figure Development 215.....	1	Physical Education 112	1
Psychology 111.....	1		
	18		17

Continued

Sophomore Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Aerodynamics 231.....	3	Air Transportation 233.....	3
Geography 231.....	3	Elective.....	3
*Shorthand.....	3	*Shorthand.....	3
Food Preparation and Serving 131.....	3	Safety and First Aid 235.....	3
Foreign Language 231.....	3	Foreign Language 232.....	3
Physical Education.....	1	Physical Education.....	1
	16		16

AIR CONDITIONING

Air Conditioning Curriculum

First Semester Subject	Hours	Second Semester Subject	Hours
Air Conditioning Principles 141.....	4	Residential Air Conditioning 143.....	4
Commercial Refrigeration 142.....	4	Commercial Air Conditioning 144.....	4
Direct Current Circuits 141.....	4	Control Theory and Application 145.....	4
Beginning Welding 141.....	4	Alternating Current Circuits 142.....	4
Physical Education.....	1	Physical Education.....	1
Psychology 111.....	1		
	18		17

*Appropriate level of typing and shorthand courses will be determined by the instructor.

COURSE DESCRIPTIONS FOR AIR CONDITIONING

141. Air Conditioning Principles. (2-4). Credit 4.

A course dealing with the fundamental principles of refrigeration and refrigeration cycles. The study of various refrigeration applications, refrigerants and refrigerant control. The laboratory work includes the use of special refrigeration service equipment, handling refrigerants and charging household refrigeration appliances.

142. Commercial Refrigeration. (2-4). Credit 4.

A course designed to cover commercial refrigeration application, the various types of commercial units and systems. Instruction in controls and control circuits as applied to commercial refrigeration. Heat loss and heat gain calculations for various commercial applications, equipment selection and location and piping procedures. Instruction in installation and service procedures for various applications.

143. Residential Air Conditioning. (2-4). Credit 4.

A course designed to cover heat transfer through various material, heat loss and heat gain calculations for residential heating and air conditioning systems, equipment selection and location, duct sizing and lay out, controls and control circuits, installation and service procedures.

144. Commercial Air Conditioning. (2-4). Credit 4.

A course designed to cover heat transfer, heat loss and heat gain calculations as applied to commercial heating and air conditioning. Psychometrics of conditioned air, duct design and lay out, equipment

selection and location, shop drawings, controls and control circuits for automatic conditioning of the air.

145. Control Theory and Application. (2-4). Credit 4.

A course designed to give the student an understanding of the operation of various types of control devices, how they can be applied and varied to achieve the designed conditions in various applications. It includes interpretations and drawings of schematic and pictorial control circuit diagrams.

AUTOMOTIVE SERVICE AND REPAIR

Automotive Service and Repair Curriculum

Freshman Year			
First Semester		Second Semester	
Subject	Hours	Subject	Hours
Automotive Engines 141.....	4	Carburetion and Fuel Systems 144.....	4
Auto Electrical Systems 142.....	4	Steering and Suspension 145.....	4
Brake Systems 143.....	4	Auto Electrical System 146.....	4
Technical Elective.....	3	Technical Elective.....	3
Psychology 111.....	1		
	<hr/>		<hr/>
	16		15
Sophomore Year			
First Semester		Second Semester	
Subject	Hours	Subject	Hours
Engine Diagnosis 241.....	4	Auto Machine Shop 245.....	4
Shop Organization and Management 246.....	4	Automotive Shop Practices 264.....	6
Transmission and Differentials 242.....	4	Automotive Air Conditioning 243.....	4
Technical Elective.....	3	Technical Elective.....	3
	<hr/>		<hr/>
	15		17

COURSE DESCRIPTIONS FOR AUTOMOTIVE SERVICE AND REPAIR

141. Automotive Engines. (2-4). Credit 4.

A course designed to provide an understanding of the fueled internal combustion engine with emphasis on the operation, maintenance, and overhaul of the power plant and its component parts and systems. The proper use of hand tools, measuring tools, and other equipment necessary to effect repairs or rebuilding of the engine with established procedures and proper testing equipment. A special emphasis will be placed on the servicing of the valve train.

142. Automotive Electrical Systems. (2-4) Credit 4.

A basic course designed to provide the student with an understanding of the component parts of the ignition, starting, and charging circuits and their function within each circuit and to attain the necessary skills to perform minor electrical service utilizing the latest service and testing procedures.

143. Brake System. (2-4). Credit 4.

A course designed to provide an understanding of the nomenclature, theory of operation, service procedures involved in the brake system. The use of the brake drum lathe, shoe grinder, bleeder, and other equipment necessary to effect brake repairs will be taught with emphasis on power brake and dual braking systems.

144. Carburetion and Fuel System. (2-4). Credit 4.

A course designed to provide an understanding of the theory, fundamentals of operation, and construction of the various types of carburetors, fuel pumps and components of the fuel system, using established procedures, measuring tools, hand tools, and special testing equipment for testing and adjusting overhauled carburetors.

145. Steering and Suspension. (2-4). Credit 4.

A course designed to provide an understanding of the construction, theory of operation, adjustment, and overhauling of various types of steering and suspension systems utilizing the front end aligning unit and other equipment necessary to effect repairs to these systems.

146. Automotive Electrical Systems. (2-4). Credit 4.

An advanced course in auto electrical systems with emphasis on alternators, voltage and amperage regulating systems, accessories, wiring diagrams, and special testing equipment in accordance with established procedures.

241. Engine Diagnosis. (2-4). Credit 4.

A course designed to provide an understanding of engine tune-up and electrical trouble-shooting procedures utilizing the oscilloscope analyzer with emphasis on the ignition, starting and charging systems.

242. Transmission and Differential. (2-4). Credit 4.

A course designed to provide an understanding of the function, construction, operation, and maintenance of all types of transmissions and differentials with special emphasis on automatic transmissions and posi-traction differentials. Disassembly, assembly, and adjustment of the components will be done in accordance with established procedures utilizing special tools and equipment necessary to effect repairs.

243. Automotive Air Conditioning (2-4). Credit 4.

A course designed to provide an understanding of the principles, design, construction, installation, and service procedures involved in auto air conditioning with special emphasis on system re-charging and compressor service.

245. Automotive Machine Shop. (2-4). Credit 4.

A course in Automotive Machine Shop practices with emphasis on block and cylinder head milling, valve seat replacement, block and cylinder head crack detection, valve guide service, and precision valve service.

246. Shop Organization and Management. (3-3). Credit 4.

A course designed to provide information and actual experiences in shop management, customer relations, warranty provisions, service salesmanship, organization and lay-out, general business practices, and in the use of time, rate, and parts manuals. This course places special emphasis on established business principles and preparation for employment.

264. Automotive Shop Practices (Co-Operative Training). (1-15). Credit 6.

A course designed to provide a combination of occupationally related classroom instruction and on-the-job training in cooperation with local automotive business establishments, and to provide the student with experiences and service jobs on live automobiles in an occupational environment. Included in this course: new car delivery preparations, state inspection, and general used car type of repair.

ART CURRICULUM**Freshman Year**

First Semester Subject	Hours	Second Semester 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	1
Physical Education	1		
	18		17

Sophomore Year

First Semester Subject	Hours	Second Semester 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	1	Physical Education	1
	16		16

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

COURSE DESCRIPTIONS FOR ART**131, 132. Freehand Drawing. (2-4). Credit 6.**

A study of the basic drawing skills, including both abstractions and expressive drawing in charcoal, pencil, pen, wash, conte crayon and mixed media.

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

Basic instruction in the elements and principles of design, with emphasis on the study of form and color theory.

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

Theory of color and form involving definite technical procedures in the various properties of color theories and their application to painting. Media: watercolor and oil.

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.

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 control composition. Media: pencil, conte, and charcoal.

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

A basic survey course, illustrated with colored slides, covering art since its beginning through the Medieval periods in painting, sculpture, architecture and the minor arts.

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

A basic survey course, illustrated with colored slides and other visual aids, treating styles and major individual artists from the Renaissance period through contemporary art. Both the major and the minor arts are covered.

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.

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.

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

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

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.

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.

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.

239a, 239b. Ceramics. (2-4). 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.

239c, 239d. Creative Hobbies. (2-4). Credit 6.

A study of the major crafts, including weaving, other textiles, enamel, metal work, paper, and mosaic. Designed for recreational leaders, teachers, workers with therapeutic art, or for anyone wishing to develop a hobby in one of the craft areas. Conducted as a workshop, each student choosing crafts of individual interest.

**Additional credits may be earned in these courses with the recommendation of the department head and approval of the dean.

BUSINESS ADMINISTRATION

General Business Curriculum*

		Freshman Year	
First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131	3	English 132	3
Math 132	3	Math 135	3
Science 141	4	Science 142	4
Introduction to Business 131	3	History 132	3
Economics 231	3	Economics 232	3
Physical Education	1	Physical Education	1
Psychology 111	1		
	18		17

Continued

BUSINESS ADMINISTRATION

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
English 231	3	English 232	3
Government 231	3	Government 232	3
Accounting 241	4	Accounting 242	4
**Elective	4	Psychology 231	3
History 131	3	Speech 233	3
Physical Education	1	Physical Education	1
	<hr/> 18		<hr/> 17

**CS 143 recommended.

*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.

Office Management Curriculum

Freshman Year

First Semester Subject	Hours	Second Semester Subject	Hours
Introduction to Business 131	3	Human Relations 136	3
Business English 137	3	Business Correspondence 138	3
Business Math 133	3	Math of Finance 134	3
Economics 231	3	Economics 232	3
Introduction to Management 135	3	Approved Elective	3
Physical Education	1	Physical Education	1
Psychology 111	1		
	<hr/> 17		<hr/> 16

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
Business Law 235	3	Labor-Management Relations 234	3
Principles of Accounting 241	4	Principles of Accounting 242	4
Marketing and Sales 231	3	Personnel Management 232	3
Business Speech 233	3	Credit and Collections 230	3
Introduction to Computers 133	3	Approved Elective	3
Physical Education	1	Physical Education	1
	<hr/> 17		<hr/> 17

Real Estate and Insurance Management Curriculum

Freshman Year

First Semester Subject	Hours	Second Semester Subject	Hours
Business English 137	3	Business Correspondence 138	3
Business Math 133	3	Math of Finance 134	3
Real Estate Fundamentals 138	3	Real Estate Law	3
Insurance 137	3	Business Organization 132	3
Introduction to Business 131	3	Life Insurance 237	3
Physical Education	1	Physical Education	1
Psychology 111	1		
	<hr/> 17		<hr/> 16

Continued

BUSINESS ADMINISTRATION

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
Principles of Accounting 241.....	4	Principles of Accounting 242.....	4
Government 231.....	3	Government 232.....	3
Real Estate Finance 233.....	3	Personnel Management 232.....	3
Economics 231.....	3	Economics 232.....	3
Introduction to Management 135.....	3	Business Speech 233.....	3
Physical Education.....	1	Physical Education.....	1
	<hr/> 17		<hr/> 17

Restaurant Management Curriculum

Freshman Year

First Semester Subject	Hours	Second Semester Subject	Hours
Food Preparation & Serving 131.....	3	Work Organization 134.....	3
Nutrition 132.....	3	Food Purchasing 135.....	3
Sanitation and Safety 133.....	3	Menu Planning 136.....	3
Business English 137.....	3	Business Correspondence 138.....	3
History 131.....	3	History 132.....	3
Psychology 111.....	1		
	<hr/> 16		<hr/> 15

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
Restaurant Merchandising 232.....	3	Management Practice 235.....	3
Introduction to Business 131.....	3	Supervision 239.....	3
Business Math 133.....	3	Bookkeeping 234.....	3
Government 231.....	3	Government 232.....	3
Economics 231.....	3	Economics 232.....	3
	<hr/> 15		<hr/> 15

Secretarial Science Curriculum**

Freshman Year

First Semester Subject	Hours	Second Semester Subject	Hours
Clerical Practice 135.....	3	Secretarial Practice 136.....	3
Beginning Shorthand 131*.....	3	Intermediate Shorthand 132*.....	3
Beginning Typewriting 133*.....	3	Intermediate Typewriting 134*.....	3
Business Math 133.....	3	Office Machines 139.....	3
Business English 137.....	3	Business Correspondence 138.....	3
Physical Education.....	1	Physical Education.....	1
Psychology 111.....	1		
	<hr/> 17		<hr/> 16

Continued

BUSINESS ADMINISTRATION

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
Bookkeeping 234.....	3	Bookkeeping 235.....	3
Advanced Shorthand 231*.....	3	Advanced Transcription 233*.....	3
Advanced Typewriting 232*.....	3	Office Administration & Procedures 237.....	3
Economics 231.....	3	Introduction to Computer Science and Computer Programming 143.....	4
Beginning Key punching 131.....	3	Approved Elective*.....	3
Physical Education.....	1	Physical Education.....	1
	16		17

*Beginning or advanced levels of shorthand and typewriting will be determined by the student's previous training in these skills and/or by placement tests. Electives may be chosen by students who receive advanced standing in shorthand and typing. Courses may be taken in a variety of accounting and electronic data processing courses.

**Students who complete only one year of the Secretarial Curriculum will be awarded a certificate of completion.

Clerical Curriculum (Nine-Month Program)

First Semester Subject	Hours	Second Semester Subject	Hours
Bookkeeping 234.....	3	Bookkeeping 235.....	3
Typewriting*.....	3	Typewriting*.....	3
Clerical Practice 135.....	3	Office Administration & Procedures 237.....	3
Business Math 133.....	3	Office Machines 139.....	3
Business English 137.....	3	Business Correspondence 138.....	3
Physical Education.....	1	Physical Education.....	1
Psychology 111.....	1		
	17		16

COURSE DESCRIPTION FOR GENERAL BUSINESS

230. Programming for Business Statistics. (3-3). Credit 3.

Computer components and languages with emphasis on FORTRAN; heuristic and algorithmic computing techniques; flowcharting; applications to measures of central tendency, variation, index numbers, curve fitting for time series; impact of computer systems on decision making. Prerequisite: Six hours of mathematics.

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

Introduction to economic analysis; price-level changes; the creation of money; the Federal Reserve System and monetary policy; the national accounts; the consumption function; taxation; fiscal policy; public debt; the theory of economic growth; population problems. (Macroeconomics).

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

Determination of relative prices; consumer demand analysis; the competitive firm; agricultural policy; the monopolistic firm; imperfect competition; business organization and government regulation; determinants of demand for productive economic view of taxation and

public expenditure; regional economics; international trade and finance; foreign economic policy. (Microeconomics).

233. 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.

234. 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.

235. Introduction to Managerial Accounting. (3-2). Credit 3.

Emphasis on managerial uses of accounting data, budgets, controls, analytical techniques, and interpretation. A study of limitations of managerial information systems and reports.

237. 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.

238. Auditing. (3-0). Credit 3.

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

241. Principles of Accounting. (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.

242. Principles of Accounting. (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.

COURSE DESCRIPTION FOR MANAGEMENT

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

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

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

Authority, delegation, responsibility; functional analysis of organization and management; organization for production, distribution, and finance. Prerequisite: Introduction to Business 131 or approval of instructor.

133. Business Mathematics. (3-0). Credit 3.

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

134. Mathematics of Finance. (3-0). Credit 3.

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

135. 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.

136. Human Relations. (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.

137. Insurance. (3-0). Credit 3.

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

138. Real Estate Fundamentals. (3-0). Credit 3.

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

139. 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.

230. Credit and Collections. (3-1). Credit 3.

The elements of mercantile and consumer credit; organization of a credit department; sources of credit information; collection tools and procedures.

231. Marketing and Sales. (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.

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.

233. 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, Commerical Banks, Life Insurance Companies and Mortgage Bankers.

234. Labor-Management Relations. (3-0). Credit 3.

Labor relations aspects of personnel management emphasized, selection and placement, discipline and morale, promotions, lay-offs, 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.

235. 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. Pre-requisite: Sophomore classification.

236. 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.

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.

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.

239. Supervision. (3-0). Credit 3.

A course designed to provide an understanding of planning work, leadership, decision making, work problem solving, human behavior and personnel relations.

COURSE DESCRIPTIONS FOR RESTAURANT MANAGEMENT

131. Food Preparation & 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.

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.

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.

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.

232. Restaurant Merchandising. (2-3). Credit 3.

Sales promotion; interior decor; types and uniformity of service; food and beverage display; menu and room styling.

234. Marketing and Sales Promotion. (3-3). Credit 3.

A course designed to develop an understanding of what must be done in order to bring the wheels of production and consumption in the United States into mesh. The business activities that direct the flow of goods and services from the producer to the ultimate consumer are analyzed. Coordination of personal selling, advertising, produce design, marketing research, and customer services are the individual ingredients of sales promotion, and each is examined in detail. Advertising is studied as the force that creates prospects for countless products, converts these prospects into customers, and keeps customers returning and buying.

235. Management Practice. (0-10). Credit 3.

Supervised work experience and practical application of management techniques.

COURSE DESCRIPTIONS FOR SECRETARIAL STUDIES

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

Introduction to Gregg Simplified shorthand. Reading; writing; theory principles; brief forms.

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

Continuation of 131.

133. Beginning Typewriting. (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.

134. Intermediate Typewriting. (3-2). Credit 3.

A continuation of Typewriting 133. Composition and typing of business letters, tabulation, typing of manuscripts.

135. Clerical Practice. (1-2). Credit 3.

Procedures of filing and finding operations employed in business offices, standard filing systems. Training in the operation of spirit duplicators, mimeograph, and dry copy machines. Introduction to and individual training in the operation of automatic typewriting equipment. Training in proficiency in operation of voice transcribing machines.

136. Secretarial Practice. (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.

137. 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.

138. Business Correspondence. (3-0). Credit 3.

A course designed to teach effective business writing and to give practice in composing all types of business letters and reports.

139. Office Machines. (3-3). Credit 3.

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

231. Advanced Shorthand. (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.

232. Advanced Typewriting. (3-2). Credit 3.

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

233. Advanced Transcription. (0-3). Credit 3.

A continuation of skill building in Gregg Shorthand with concentration on transcribing into mailable copy of office-style dictation. Prerequisite: Advanced Shorthand 231.

234. Bookkeeping. (3-2). Credit 3.

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

235. Bookkeeping. (3-2). 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.

236. Report Writing. (3-0). Credit 3.

The techniques of writing technical reports and business letters.

237. Office Administration and Procedures. (3-0). Credit 3.

This course is a finishing course through which secretarial and/or clerical students may have an opportunity to relate all information, knowledges, and skills acquired in their academic preparation. Special emphasis will be given to the interrelatedness of the office in various systems that affect office work.

CAREER PILOT***Career Pilot Curriculum
Two Year Program****Freshman Year**

First Semester Subject	Hours	Second Semester Subject	Hours
Aircraft Science 131	3	Propulsion Systems 132.....	3
Air Navigation 133	3	Basic Flight 130.....	3
Flight Instruction 111	1	Meteorology 232.....	3
History 131	3	History 132	3
English 131.....	3	English 132.....	3
Approved Math.....	3	Physical Education.....	1
Physical Education.....	1		
Psychology 111.....	1		
	<hr/>		<hr/>
	18		16

Continued

CAREER PILOT*

		Sophomore Year	
		First Semester	Second Semester
Subject	Hours	Subject	Hours
Aerodynamics 231.....	3	Air Transportation 233.....	3
Intermediate Flight 134.....	3	Aviation Radio Systems 237.....	3
Advanced Air Navigation 230.....	3	Commercial Flight 234.....	3
Government 231.....	3	Government 232.....	3
Physics 140.....	4	Approved Elective.....	3
Physical Education.....	1	Physical Education.....	1
	17		16

*Students may earn a Baccalaureate Degree in Career Aviation to be granted by American Technological University located adjacent to Central Texas College. All credits earned in the Career Pilot Program at Central Texas College are transferable to American Technological University.

COURSE DESCRIPTIONS FOR CAREER PILOT

111. Flight Instruction. (.5-1). Credit 1.

An introduction to flight through actual flying experience in modern, safe, fully equipped aircraft. A minimum of twenty-three hours of instruction is provided including twelve hours of dual flight, three hours of solo flight, and eight hours of oral instruction and briefings. The program is more than sufficient to qualify a student for solo flight. Prerequisite: Class II (Commercial) FAA Physical Examination.

130. Basic Flight. (1-2.5). Credit 3

Continuation of flight training for completion of the Private Pilot Certificate; it exceeds the minimum flight hours necessary to satisfy the Federal Aviation Administration requirements. A minimum 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 briefings. Prerequisite: CP 111; CP 133 or concurrent enrollment or passed the FAA Private Pilot written examination.

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 practical use in aircraft construction and design.

132. Propulsion Systems. (3-0). Credit 3.

Aircraft engine theory and principles of operation of various types of aircraft engines: reciprocating, turboprop, turbojet, and turboprop. Consideration is also given to thermal, mechanical and volumetric efficiencies, superchargers, engine accessories, controls and instrumentation.

133. Air Navigation. (3-0). Credit 3.

The principles of flight, basics of air traffic control, weather facts, navigational procedures and airplane operation as are pertinent for the Private Pilot. Upon successful completion of this course, the stu-

dent has sufficient knowledge to pass the FAA written examination for the Private Pilot Certificate, which constitutes the final examination.

134. Intermediate Flight. (1.9-3.1). Credit 3.

First half of two phases of flight training in preparation for the FAA Commercial Pilot Certificate. A minimum of eighty hours of instruction is provided, including fourteen hours of dual flight, thirty-six hours of solo flight and thirty hours of oral instruction and briefings.

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.

232. Meteorology. (3-0). Credit 3.

Aviation meteorological phenomena affecting aircraft flight. Interpretation of the basic concepts of temperature, pressure, moisture, stability, clouds, air masses, fronts, thunderstorms, icing and fog. Analysis and use of weather data for flight planning and safe flying.

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 FAA and the Civil Aeronautics Board is reviewed.

234. Commercial Flight. (1.6-3.4). Credit 3.

A continuation of 134. The second half of two phases of flight training leading to the completion of the FAA Commercial Pilot Certificate. A minimum of eighty hours of instruction is provided including fifteen hours of dual flight, forty hours of solo flight and twenty-five hours of oral instruction and briefing. Prerequisite: CP 134 or equivalent flight experience as determined by the instructor.

234A. Commercial Flight. (1-2.2). Credit 3.

This course has been established to transition Commercial Rotorcraft Helicopter Pilots to Commercial Airplanes Single Engine Land Rated Pilots. The hours and flight maneuvers which are inclusive sufficiently satisfy the FAA requirements for a Fixed Wing Commercial Rating. The course covers 35 flight hours of which 23.5 hours are dual instruction, 10 hours of solo, and 1.5 hours are provided for the FAA Commercial Fixed Wing Pilot Flight Test. In addition there are

15 hours of oral instruction and briefings. Prerequisite: FAA Commercial Rotorcraft Helicopter Rating and class II FAA medical.

237. Aviation Radio Systems. (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 the radio navigation including the use of the Flight Information Manual. Prerequisite: CP 230.

330. Instrument Flight. (1.9-2.2). Credit 3.

The necessary instruction to qualify for the FAA Instrument Pilot Rating. A minimum of sixty-five hours of instruction is provided, including thirty-five hours of dual flight and thirty hours of oral instruction and briefing. Prerequisite: CP 234 or a Commercial Pilot Certificate.

COMMUNICATIONS

English Curriculum

Freshman Year			
First Semester Subject	Hours	Second Semester 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 131	3	History 132	3
Physical Education	1	Physical Education	1
Psychology 111	1		
	19		18

Sophomore Year			
First Semester Subject	Hours	Second Semester Subject	Hours
English 231	3	English 232	3
Foreign Language 231	3	Foreign Language 232	3
Science 141	4	Science 141	4
Government 231	3	Government 232	3
Elective	3	Elective	3
Physical Education	1	Physical Education	1
	17		17

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

**Students planning to transfer to the University of Texas should begin with English 132. The first course is no longer eligible to meet degree requirements.

COURSE DESCRIPTIONS FOR ENGLISH

121. Reading and Comprehension (1-2). Credit 2.

A course designed to increase rate of reading and comprehension. Some attention is given to vocabulary building, but primary emphasis is upon techniques of rapid reading and increasing the percentage of comprehension.

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

A study of basic compositional skills with emphasis on sentence structure and paragraph structure.

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.

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.

133, 134. English for Foreign Speaking

Students. (3-2). Credit 6.

Speaking and writing for students whose native language is not English. Intended to aid foreign students in attaining greater facility in the use of the English language.

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

A survey of English Literature from Beowulf through the eighteenth century. The study includes selections of poetry, prose, and drama. Prerequisites: English 131, 132.

232. English Literature. (3-0). Credit 3.

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.

233, 234. 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.

237, 238. American Literature. (3-0). Credit 6.

From the beginning to 1860. This course treats briefly of colonial writers and writings to center attention on major literary figures of the first half of the nineteenth century. Both narrative and expository prose is studied, along with poetry and drama. From 1860 to the present. This course surveys major literary movements from the Civil War to the present.

239. Report Writing and Correspondence. (3-0). Credit 3.

The writing of technical reports and business letters.

Speech Curriculum

Freshman Year			
First Semester Subject	Hours	Second Semester Subject	Hours
English 131	3	English 132	3
History 131	3	History 132	3
Foreign Language 141	4	Foreign Language	4
Speech 131	3	Speech 132	3
Elective	3	Elective	3
Physical Education	1	Physical Education	1
Psychology 111	1		
	18		17
Sophomore Year			
First Semester Subject	Hours	Second Semester Subject	Hours
English 231	3	English 232	3
Government 231	3	Government 232	3
Foreign Language 231	3	Foreign Language 232	3
Elective	3	Elective	3
Elective	3	Elective	3
Physical Education	1	Physical Education	1
	16		16

COURSE DESCRIPTIONS FOR SPEECH**131. Fundamentals of 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 materials with the 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.

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.

233. Business Speech. (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.

Journalism

Freshman Year

First Semester Subject	Hours	Second Semester Subject	Hours
Journalism 141.....	4	Journalism 142.....	3
English 131.....	3	English 132.....	3
History 131.....	3	History 132.....	3
Speech 131.....	3	Psychology 231.....	3
*Elective.....	3	*Elective.....	3
Physical Education.....	1	Physical Education.....	1
Psychology 111.....	1		
	18		16

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
English 231.....	3	English 232.....	3
Government 231.....	3	Government 232.....	3
Economics 231.....	3	Economics 232.....	3
Sociology 231.....	3	Sociology 231.....	3
Physical Education.....	1	Elective.....	3
		Physical Education.....	1
	13		16

*Recommended: Math 131 and 133 may be substituted for second year language.

141. Communications Media. (3-3). Credit 4.

Introductory survey of mass communications media, their purpose and methods of operation.

142. News Gathering and Reporting. (3-3). Credit 4.

Instruction and practice in interviewing and reporting; discussion of news sources, news values, and various types of news stories.

COMPUTER MAINTENANCE

Computer Maintenance Curriculum

Freshman Year

First Semester Subject	Hours	Second Semester Subject	Hours
Math of Electronics 131.....	3	Math of Electronics 132.....	3
Engineering Graphics 131.....	3	Alternating Current Circuits 142.....	4
Direct Current Circuits 141.....	4	Vacuum Tubes and	
English 131.....	3	Semiconductors 143.....	4
Assembly Methods 135.....	3	Test Equipment 144.....	4
Psychology 111.....	1	Introduction to Computer	
		Circuits 145.....	4
	17		19

Continued

COMPUTER MAINTENANCE

Sophomore Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Approved English.....	3	Integrated Devices 246	4
Solid State Devices 244.....	4	Computer Systems and Operational Programming 243	4
Computer Circuits and Numbering Systems 241	4	Computer Circuit Analysis 247.....	4
Memory Devices and Analysis 242.....	4	Computer Maintenance and Troubleshooting 248.....	4
Intro. To Computer Programming 134.....	3		
	18		16

COURSE DESCRIPTIONS FOR COMPUTER MAINTENANCE

131. Math of Electronics. (3-0). Credit 3.

A study of the basic concepts of math and algebra as they apply to the field of Electronics.

131. Engineering Graphics. (2-4). 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.

132. Math of Electronics. (3-0). Credit 3.

A study in the solution of electronic problems through the use of the slide rule, algebra, trigonometry, and selected topics from calculus.

134. Introduction to Computer Programming. (3-2). 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.

135. Assembly Methods. (2-3). Credit 3.

A study of modern assembly methods and practices used in industry, including the design, layout and construction of electronic apparatus.

141. Direct Current Circuits. (3-3). Credit 4.

A study of the elementary principles of electronics including DC circuits as related to series and parallel resistive, capacitive, and inductive networks, and the use of Ohm's Law, Kirchoff's Laws, and the power formulas in analyzing these networks.

142. Alternating Current Circuits. (3-3). Credit 4.

A study of single and polyphase AC circuits and the use of Kirchoff's Laws as well as Thevenin's, Norton's and Super-position Theorems in analyzing these circuits.

143. Vacuum Tubes and Semiconductors. (3-3). Credit 4.

A broad view of vacuum tubes, transistors, and other semiconductors, their composition, characteristics, theory of operation and circuit applications.

144. Test Equipment. (3-3). Credit 4.

The use, repair, and theory of operation of all types of electronic test equipment ranging from the VOM through the Dual Beam Oscilloscope.

145. Introduction to Computer Circuits. (3-3). Credit 4.

An introduction to computer circuitry. This course explains difference between analog and digital circuits and discusses computer and digital circuit applications. Covers Logic Circuits, Boolean Algebra and Simplification Theorems.

241. Computer Circuits and Numbering

Systems. (3-3). Credit 4.

This course covers the theory and operation of flip-flop register and counter circuits. It also covers numbering systems, arithmetical circuitry and control element circuitry.

242. Memory Devices and Analysis. (3-3). Credit 4.

A study of the selection of memory devices, principals of storage, timing controls, operation, analysis of memory problems, troubleshooting and repair.

243. Computer Systems and Operational Programming. (3-3). Credit 4.

The study of the theory of operation of computer systems, to include instructions, logic diagrams, circuit schematics, programming as a troubleshooting tool, flowcharting and operational characteristics.

244. Solid State Devices. (3-3). Credit 4.

The study of the solid state devices used throughout industry, their characteristics and relation to circuits in both low and high frequency applications.

246. Integrated Devices. (3-3). Credit 4.

A study of the use of IC's in the form of flip flops, and, nand, or and nor chips as used in the new electronic circuits of today.

247. Computer Circuit Analysis. (3-3). Credit 4.

The study of pulse generation, shaping circuits, trigger circuits, synchronization and counting circuits.

248. Computer Maintenance and Troubleshooting. (3-3). Credit 4.

The study of advanced diagnostic programming and finding, documenting and repairing computer malfunctions.

COMPUTER SCIENCE*

Two-Year Program Commercial

Freshman Year

First Semester Subject	Hours	Second Semester Subject	Hours
Intro. to Computer Science and Computer Programming 143.....	4	COBOL Programming 138	3
Computers and Society 120	2	Computer Operation and Organization 139.....	3
English 131	3	English 132	3
**Math Option	3	*Math Option	3
History 131 or Introduction to Business 131.....	3	History 132 or Technical Elective.....	3
Physical Education.....	1	Physical Education.....	1
Psychology III.....	1		
	17		16

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
Advanced COBOL 234.....	3	Computer Science Elective.....	3
Assembler Language Programming 243.....	4	Systems Analysis 238	3
Accounting 241	4	Accounting 242	4
Government 231.....	3	Government 232.....	3
Economics 231	3	Economics 232.....	3
Physical Education.....	1	Physical Education.....	1
	18		17

*Students may earn a Baccalaureate Degree in Computer Science (Business Application) to be granted by American Technological University located adjacent to Central Texas College. All credits earned in the Computer Science (Commercial) Program at Central Texas College are transferable to American Technological University.

**Students may take Math 131 and Math 135.

COMPUTER SCIENCE*

Two-Year Program Scientific

Freshman Year

First Semester Subject	Hours	Second Semester Subject	Hours
Intro. to Computer Science and Computer Programming 143.....	4	COBOL Programming 138	3
Computers and Society 120	2	Computer Operation and Organization 139.....	3
English 131	3	English 132	3
**Math Option	3	*Math Option	3
History 131 or Introduction to Business 131.....	3	History 132 or Technical Elective.....	3
Physical Education.....	1	Physical Education.....	1
Psychology III.....	1		
	17		16

Continued

COMPUTER SCIENCE*

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
Advanced COBOL 234.....	3	Computer Science Elective.....	3
Assembler Language Programming 243.....	4	Systems Analysis 238.....	3
Math 231.....	3	Math 232.....	3
Government 231.....	3	Government 232.....	3
Physics or Approved Science.....	4	Physics or Approved Science.....	4
Physical Education.....	1	Physical Education.....	1
	18		17

*Students may earn a Baccalaureate Degree in Computer Science (Scientific Application) to be granted by American Technological University located adjacent to Central Texas College. All credits earned in the Computer Science (Scientific) Program at Central Texas College are transferable to American Technological University.

**Students may take Math 131 and Math 135.

Computer Operators Curriculum**

First Semester Subject	Hours	Second Semester Subject	Hours
Intro. to Computer Science and Computer Programming 143.....	4	Computer Operation and Organization 139.....	3
Computers and Society 120.....	2	Computer Center Operations 221.....	2
Bookkeeping 234.....	3	Introduction to Business 131.....	3
Business English 137.....	3	Approved Math.....	3
*Approved Elective.....	3	*Approved Elective.....	3
Psychology III.....	1		
	16		14

Electronic Data Processing Clerk**

First Semester Subject	Hours	Second Semester Subject	Hours
Computers and Society 120.....	2	Advanced Data Entry 123.....	3
Intro. to Computer Science and Computer Programming 143.....	4	Introduction to Business 131.....	3
Beginning Key Punch 131.....	3	Control Clerk Operator 133.....	3
Bookkeeping 234.....	3	*Approved Elective.....	3
Business English 137.....	3	Bookkeeping 235.....	3
Psychology III.....	1		
	16		15

*Electives must be from other Data Processing courses or approved by the Director.

**Students who complete the 9 months' Computer Operators Curriculum will be awarded a certificate of completion. Students who complete the 9 months' EDP Clerk curriculum will receive both a Key Punch Operators Certificate and an EDP Clerk Certificate.

COURSE DESCRIPTIONS FOR COMPUTER SCIENCE

120. Computers and Society. (2-0). Credit 2.

This is a non-technical survey course which studies the roll that computers play in our society. The purpose is to give a basic, general and accurate picture of what computers are, do and can do and to lay to rest myths and mystiques concerning computers. The effects the

computers have had and are having on society are studied and used to project what effects they may have in the future.

121. RPG Programming. (1-2). Credit 2.

Report Program Generator, a problem language involving program logic, file description, input, calculation, output of practical business-oriented problems on large-scale card, tape, and disk systems. Prerequisite: Permission of instructor.

123. Advanced Data Entry. (1-2). Credit 3.

Advanced keypunch and verifier operation; program card design and preparation; direct data entry techniques; drills to develop maximum efficiency and speed; some on-the-job training is required for the completion of the course. Prerequisite: CS 131.

131. Beginning Key punching. (1-3). 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.

133. Control Clerk Operator. (2-3). Credit 3.

Concepts of tape and disk library management and organization methods are presented. Some on-the-job training is required for completion of the course. Prerequisite: CS 131.

138. COBOL Programming. (3-2). Credit 3.

Theory and operation of digital computers and programming language and techniques particularly suitable for problems and nonnumeric in nature. Prerequisite: CS 143.

139. Computer Operation and Organization. (3-0). Credit 3.

This course is designed to give the student an understanding of the fundamental principles by which computers work and how these principles effect and govern programming techniques. Emphasis is placed on the IBM System 360/370 because of its prominence in the market place. Prerequisite: CS 143.

143. Introduction to Computer Science and Computer Programming. (3-3). Credit 4.

This course is intended to be the first course in the computer science curriculum and no prior knowledge of computers or programming is assumed. The programming language, preferably BASIC or FORTRAN, and flowcharting are introduced at the beginning of the course so that the student will have a better idea of what computer does before investigating how it functions.

Approximately half of the lectures and nearly all of the laboratories are devoted to programming and flowcharting. Programming assignments will run concurrently with other fundamental topics such as historical development of computers, typical present day hardware and software and computer applications.

221. Computer Center Operations. (0-4). Credit 2.

This course is designed primarily to familiarize the student with work flow and throughput in a modern computer center. Involves actual work experience in the college's computer center. Prerequisites: CS 133, CS 139.

234. Advanced COBOL. (3-2). Credit 3.

Advanced theory and operation of digital computers and programming language and techniques particularly suitable for problems non-numeric in nature. Specifically related to advanced systems concepts. Prerequisite: CS 138.

235. PL-1 Programming. (3-2). Credit 3.

Scientific and business oriented problems will be solved using Programming Language One, a combination of both COBOL and FORTRAN. Emphasis will be placed on advanced programming concepts. Prerequisite: CS 143.

236. Conversational Languages. (3-2). Credit 3.

Programming and testing sample programs written in a remote terminal-oriented language, such as BASIC, Conversational FORTRAN and APL. Prerequisite: CS 143 or consent of instructor.

237. Field Project. (0-6). Credit 3.

Problem in student's divisional major applying electronic data analysis and processing techniques. Prerequisite: 12 hours in computer science and consent of instructor.

238. Systems Analysis. (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 these data, and expressing of analysis in descriptive terms. Problem statements and flowcharting methods. Prerequisite: CS 138.

243. Assembler Language Programming. (3-3). Credit 4.

Assembler language programming for the current college system. Programming and debugging of business oriented problems with emphasis on the standard and decimal instruction set and the sequential access method. Prerequisites: CS 143, CS 139.

EDUCATION

General Education Curriculum

Freshman Year

First Semester Subject	Hours	Second Semester Subject	Hours
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
Physical Education	1	Physical Education	1
Psychology III	1		
	<hr/> 19		<hr/> 18

Sophomore Year

First Semester Subject	Hours	Second Semester 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	Psychology 232	3
Sociology 231	3	Sociology 232	3
Physical Education	1	Physical Education	1
	<hr/> 16		<hr/> 16

EDUCATION COURSE DESCRIPTIONS

221. Mechanics and Teaching of Penmanship. (2-0). Credit 2.

In this course a brief study is made of the objectives and procedures of teaching writing in the elementary grades. It is designed for the improvement of handwriting and the techniques of teaching both manuscript and cursive writing.

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

A survey course in the social foundations of American Education.

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

Emphasis is given to the study and application of those aspects of psychology which influence the effectiveness of the teaching and learning process.

233, 234. Art Education. (3-3). Credit 6.

Designed to inculcate in the student a respect for free, creative child art and to present to him methods that have succeeded in evoking that type of art.

235. Introduction to Speech and Hearing Therapy. (3-0). Credit 3.

Description, etiologies, basic principles of treatment and prognosis of the more frequently encountered communication disorders required observation of various disorders in speech clinic.

236, 237. Speech Correction. (3-0). Credit 6.

An introduction to the study of speech correction. A survey of the defects of speech with particular emphasis on articulation defects and voice problems. Consideration of fundamental diagnostic and thera-

peutic principles in the school and clinic. One hour per week clinical observation required. A technical and professional course in the causes, nature, symptoms, and rehabilitation of disordered speech. Review of current theories and recent experimental work. One hour per week clinical observation required. (6 hours speech)

238, 239. Teaching Music at the Elementary

Level. (3-0). Credit 6.

Recruiting students for the elementary school instrumental and vocal programs; preliminary organization; judging the ability of the student to benefit by the instrumental program and choosing the instrument most suitable to the student; instrumental class problems, methods and materials, rhythmic development of the child, introduction of notation and sight reading.

431. History and Philosophy of Occupational

Education. (3-0). Credit 3.

A study of the leaders, movements, and agencies that have contributed to the development of occupational education in the United States. Special emphasis will be placed on the philosophy of the movement, the laws, and the operation of the agencies which administer the laws.

432. Course Design and Methods of Teaching. (3-0). Credit 3.

Principles and practices related to the design and development of Occupational courses including content, balance, analysis, and evaluation. Application of appropriate methods of teaching, including use of audiovisual material, to specific subjects will be made through practice in the college classroom.

433. Education Psychology. (3-0). Credit 3.

A study of scientific contributions to the understanding of human behavior and to educational processes including biological and cultural influences, learning theory, and the role of the teacher.

434. Classroom Management and Guidance. (3-0). Credit 3.

A study of the organization of the classroom and the shop to facilitate teaching. The student will receive vocational testing and measurement, guidance counseling, and occupational opportunities.

ELECTRONICS

Communications Electronics Curriculum

Freshman Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Math of Electronics 131.....	3	Mathematics of Electronics 132.....	3
Engineering Graphics 131.....	3	Alternating Current Circuits 142.....	4
Assembly Methods 135.....	3	Vacuum Tubes and	
Direct Current Circuits 141.....	4	Semiconductors 143.....	4
English 131.....	3	Test Equipment 144.....	4
Physical Education.....	1	English 132.....	3
Psychology 111.....	1	Physical Education.....	1
	18		19
Sophomore Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Solid State Devices 244.....	4	Computer Circuits and	
Solid State Circuits 245.....	4	Numbering System 241.....	4
Technical Elective.....	3	Special Project 233.....	3
*Approved Elective.....	3	Communications Circuits 241.....	4
Physical Education.....	1	Integrated Devices 246.....	4
	15	Physical Education.....	1
			16

*Electives must be chosen from Electronics or related courses and approved by program director before registration.

COURSE DESCRIPTIONS FOR COMMUNICATIONS ELECTRONICS

131. Math of Electronics. (3-0). Credit 3.

A study of the basic concepts of math and algebra as they apply to the field of Electronics.

132. Math of Electronics. (3-0). Credit 3.

A study in the solution of electronic problems through the use of the slide rule, algebra, trigonometry, and selected topics from calculus.

135. Assembly Methods. (2-3). Credit 3.

A study of modern assembly methods and practices used in industry, including the design, layout and construction of electronic apparatus.

141. Direct Current Circuits. (3-3). Credit 4.

A study of the elementary principles of electronics including DC circuits as related to series and parallel resistive, capacitive, and inductive networks, and the use of Ohm's Law, Kirchhoff's Laws, and the power formulas in analyzing these networks.

142. Alternating Current Circuits. (3-3). Credit 4.

A study of single and polyphase AC circuits and the use of Kirchhoff's Laws as well as Thevenin's, Norton's and Superposition Theorems in analyzing these circuits.

143. Vacuum Tubes and Semiconductors. (3-3). Credit 4.

A broad view of vacuum tubes, transistors, and other semiconductors, their composition, characteristics, theory of operation and circuit applications.

144. Test Equipment. (3-3). Credit 4.

The use, repair, and theory of operation of all types of electronic test equipment ranging from the VOM through the Dual Beam Oscilloscope.

146. Sound Systems. (3-3). Credit 4.

Course covers the fundamentals of design and servicing techniques of sound reinforcement, public address, paging, and sound distribution systems.

148. Industrial Electronic Circuits and Systems. (3-3). Credit 4.

A study of special purpose electronic control circuits and systems as applied by industry today. This course will include theory and operation, maintenance, diagnostic trouble-shooting, and repair of these special purpose circuits.

149. Television Theory and Servicing. (3-3). Credit 4.

A study of electron tube circuits peculiar to television receivers and practical methods for trouble-shooting and servicing of inherent problems.

232. Circuit Analysis. (3-0). Credit 3.

The application of loop and nodal equations, differential equations, Laplace transforms, and Fourier series in the solution of electronic problems.

233. Special Project. Credit 3.

An intensive study in the design and construction of a project of special interest to the student.

244. Solid State Devices. (3-3). Credit 4.

The study of the solid state devices used throughout industry, their characteristics and relation to circuits in both low and high frequency applications.

245. Solid State Circuits. (3-3). Credit 4.

Use of transistors and semiconductors in different pulse producing circuits.

246. Integrated Devices. (3-3). Credit 4.

A study of the use of IC's in the form of flip flops, and, nand, or and nor chips as used in the new electronic circuits of today.

249. Advanced Television Serving. (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.

ENGINEERING**Drafting and Design Curriculum****Freshman Year**

First Semester Subject	Hours	Second Semester Subject	Hours
Blueprint Reading 111	1	Engineering Graphics 132	3
Introduction to Engineering 121	2	Engineering Drawing 143	4
Engineering Graphics 131	3	Structural Drafting 244	4
Fundamentals of Speech 131	3	Business Math 133	3
Business English 137	3	Physical Education	1
Psychology 111	1		
Physical Education	1		
	14		15

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
Engineering Design 232	3	Drafting and Design 234	3
Architectural Drafting 242	4	Electronic Drafting 243	4
Technical Illustration 233	3	Industrial Practice 246	4
*Approved Elective	3	Architectural Drafting 247	4
Physical Education	1	*Approved Elective	3
		Physical Education	1
	14		19

General Engineering Curriculum**Freshman Year**

First Semester Subject	Hours	Second Semester Subject	Hours
Engineering Graphics 131	3	Engineering Graphics 132	3
Mathematics 134	3	Mathematics 232	3
Mathematics 231	3	English 132	3
English 131	3	**Science 142	4
**Science 141	4	Physical Education	1
Physical Education	1	Elective	3
Psychology 111	1		
	18		17

Continued

ENGINEERING

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
History 131	3	History 132	3
***English 231	3	***English 232	3
Government 231	3	Government 232	3
Engineering Design 232	3	Structural Drafting 244	4
Elective	4	Elective	4
Physical Education	1	Physical Education	1
	17		18

*Advanced Math, Art, Machine Shop, English, or others by permission of Department Manager.

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

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

COURSE DESCRIPTIONS FOR ENGINEERING

111. Blueprint Reading. (1-1). Credit 1.

Fundamentals of blueprint reading and sketching as they apply to various occupations — architectural, structural, electrical, and machine.

121. Introduction to Engineering. (2-0). Credit 2.

A survey of the engineering profession and manufacturing processes with emphasis on engineering methods of problem solving. Course emphasizes familiarization with materials and techniques and includes field trips to area manufacturing plants.

131. Engineering Graphics. (2-4). 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.

132. Engineering Graphics. (2-4). Credit 3.

Continued training in auxiliary views, sections and conventions, intersections and developments, dimensions, notes, limits, and precision; screw threads, etc.

133. Blue Print Reading. (3-3). Credit 3.

Intensified classroom instruction will consist of how to read and interpret engineering drawings and sketches. A basic knowledge of sketching and dimensioning, along with section views, detailing, assembly drawings, lettering and drafting techniques.

143. Engineering Drawing. (2-4). Credit 4.

Drawing and manufacturing processes; training in producing various kinds of advanced drawings; commercial practices, and economies; and the use of standard parts, sizes, symbols, and abbreviations.

232. Engineering Design. (2-4). Credit 3.

Engineering design graphics and descriptive geometry principles are presented as the fundamentals of the design process. Involves point, line, and plane relationships, auxiliary views, intersections and flat pattern development. Emphasis is placed on practical solutions to realistic engineering problems relating to aerospace, mining, and geology.

233. Technical Illustration. (2-4). Credit 3.

Introduction to pictorial drawings as used in industrial catalogs, assembly sheets, newspaper publications, and promotional literature. Work to be done in various media to include pencil, ink, transfer tapes, craftint, zip-a-tone, and air brush. Prerequisite DD 132.

234. Drafting and Design. (2-2). Credit 3.

Theory and practice of design as related to engineering and technology. Analysis in the areas of architecture, machine design, structural design, and product development. Prerequisite: Engr. 232 and Engr. 131.

242. Architectural Drafting. (2-4). 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.

243. Electronic Drafting. (2-4). Credit 4.

A study of layout and preparation of finished electronic and electrical drawings, stressing modern representation used for pictorial drawings, wiring and connection diagrams, printed circuits, control circuits, and schematic diagrams. Stress is placed on accepted practices and symbols in engineering offices. Some review of lettering and mechanical drawing principles.

244. Structural Drafting. (2-4). 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.

246. Industrial Practice. (2-4). Credit 4.

This course is designed to give specialized practice to the student in his major field of interest. The student will complete actual jobs for area industries to gain realistic experience in his chosen career.

247. Architectural Drafting. (2-4). Credit 4.

Drawing for small commercial buildings, and multistory residential designs with steel and concrete detailing. Prerequisite: DD 242 or approved commercial experience.

ENVIRONMENTAL CONTROL

Water Quality Control Curriculum

Freshman Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Water and Wastewater Technology 131	3	Aquatic Biology 132	3
English 131	3	Report Writing 237	3
Speech 131	3	Math 133	3
Chemistry 141	4	Solid Waste Management 133	3
Physical Education	1	Chemistry 142	4
	14	Physical Education	1
			17
Sophomore Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Air Pollution 231	3	Instrumentation 233	3
Industrial Waste Control 232	3	Water Quality Control 234	3
Microbiology 144	4	Pollution Abatement Seminar 222	2
Physics 141	4	Economics 231	3
Pollution Abatement Seminar 221	2	Water and Wastewater Chemistry 243	4
Physical Education	1	Physical Education	1
	17		16

COURSE DESCRIPTION FOR WATER QUALITY CONTROL

131. Water and Waste Water Technology. (3-0). Credit 3.

A study of method of disease transmission, hygienic excreta disposal, municipal and industrial waste water collection and treatment, characteristics of water, water treatment, protection of ground water, insect and rodent control, solid waste collection and disposal, milk and food sanitation, swimming pool sanitation, and industrial hygiene.

132. Aquatic Biology. (2-3). Credit 3.

A study of fresh water as an environment, its physical and chemical characteristics; and characteristics of plant and animal communities which inhabit it. The morphology, life history, and taxonomy of fresh water aquatic organisms. (Field trips required.)

133. Solid Waste Management. (3-0). Credit 3.

Types of solid waste, physical and chemical method of handling solid wastes, possibilities of re-cycling (re-using) solid waste material, possibilities for by-products from solid waste.

221, 222. Pollution Abatement Seminar. (4-0). Credit 4.

Particular problems involving pollution and control in our environment are to be presented and discussed by students in oral reviews. The "how, why and what to do" aspects of pollution are to be stressed.

231. Air Pollution. (2-3). Credit 3.

Sources of air pollution — industrial, municipal, automotive; physical and chemical nature of air pollutant. Lab technique for detecting air pollutants. Control and treatment of air pollution.

232. Industrial Waste Control. (2-3). Credit 3.

Company policies, organizational problems, legal responsibilities in waste control; investigations into possible regional pollution, and preventive tactics that could be employed.

233. Instrumentation. (2-3). Credit 3.

An elementary study of hydraulic, pneumatic, mechanical, electronic control systems and components. It includes a basic description, analysis, and explanation of instrumental controls for a waste water plant. Typical performance characteristics, accuracy, and application of instruments are studied.

234. Water Quality Control. (2-3). Credit 3.

A study of basic principles of water purification including; aeration sedimentation, rapid sand filtration, chlorination, treatment chemicals, taste and odor control, bacteriological control, mineral control, design criteria, maintenance programs, and operational problems. New processes and recent developments are studied. Criteria rules, regulations, forms and records associated with the field are considered.

243. Water and Waste Water Chemistry. (3-3). Credit 4.

Theory and laboratory techniques for all control tests of water purification and analysis including: color, turbidity, pH, hardness, coagulation, chlorides, flourides, iron, manganese, bactericides, nitrates, and organic compounds which may be present in water. Qualitative and quantitative analysis are to be stressed in this area.

FOREIGN LANGUAGE

Language 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	1	Physical Education	1
Psychology 111	1		
	19		18

Continued

FOREIGN LANGUAGE

Sophomore Year			
First Semester Subject	Hours	Second Semester Subject	Hours
English 231	3	English 232	3
Major Language 231	3	Major Language 232	3
Government 231	3	Government 232	3
**Science 141	4	**Science 142	4
***Second Language 141	4	***Second Language 142	4
Physical Education	1	Physical Education	1
	18		18

*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.

COURSE DESCRIPTIONS FOR LANGUAGE

French

141. Beginning French. (3-2). Credit 4.

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

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.

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.

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

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

German

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

For those who have had no previous work in German. The essential grammar is taught 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.

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

A continuation of German 141. Prerequisite: 141 or its equivalent.

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.

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 are introduced. Conversation in Spanish is stressed. Prerequisite: Spanish 141.

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: Spanish 141, 142, or two years of Spanish in an accredited high school.

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.

LAW ENFORCEMENT*

Law Enforcement Curriculum

Freshman Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Introduction to Law		Criminal Investigation 132.....	3
Enforcement 131	3	Criminal Procedures and	
Legal Aspects of Law		Evidence 134.....	3
Enforcement 133	3	Police Role in Crime and	
Police-Community Relations 137.....	3	Delinquency 138.....	3
History 131	3	History 132	3
English 131	3	English 132	3
Psychology 111	1	P.E. (Health and First Aid) 218-A	1
P.E. (Men's Physical			
Conditioning) 218.....	1		
	17		16
Sophomore Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Psychology 231.....	3	Speech 233.....	3
Juvenile Procedures 234.....	3	Traffic Planning and	
Police Organization and		Administration 236.....	3
Administration 235.....	3	Patrol Administration 238.....	3
Government 231	3	Government 232.....	3
Sociology 231	3	**Approved Elective.....	3
P.E. (Defensive Tactics) 218-B.....	1	P.E. (Firearms) 218-C.....	1
	16		16

*Students may earn a Baccalaureate Degree in Criminal Justice to be granted by American Technological University located adjacent to Central Texas College. All credits earned in the Law Enforcement Program at Central Texas College are transferable to American Technological University.

**Elective to be approved by department head.

COURSE DESCRIPTIONS FOR LAW ENFORCEMENT

131. Introduction to Law Enforcement. (3-0). Credit 3.

History, development and philosophy of law enforcement in a democratic society; introduction to agencies involved in the administration of criminal justice; career orientation.

132. Criminal Investigation. (3-0). Credit 3.

Introduction to the fundamentals of criminal investigation, including theory and history, conduct at crime scenes, collection and preservation of evidence.

133. Legal Aspects of Law Enforcement. (3-0). Credit 3.

History and philosophy of modern criminal law, including the structure, definition and application of statutes and leading case law; the elements of crimes and penalties; general provisions of the Penal Code.

134. Criminal Procedure and Evidence. (3-0). Credit 3.

Introduction to the rules governing the admissibility of evidence and types of evidence; criminal procedure in various courts, review of the Texas Code of Criminal Procedure, including laws of arrest, search and seizure, and leading case law on each topic.

135. Traffic Law. (3-0). Credit 3.

This course is designed to cover all laws pertaining to the control and enforcement of traffic. The officer is taught the use of spot maps and charts, the techniques of enforcement, and the maintenance of good public relations. An analysis of the Texas Motor Vehicle Code is given.

137. Police-Community Relations. (3-0). Credit 3.

The role of the individual officer in achieving and maintaining positive public response; inter-group relations and public information.

138. Police Role in Crime and Delinquency. (3-0). Credit 3.

Study of deviate behavior and current criminological theories, with emphasis on police applications; crime prevention and the phenomena of crime as it relates to juveniles.

234. Juvenile Procedures. (3-0). Credit 3.

The organization, functions and jurisdiction of juvenile agencies; the processing and detention of juveniles, case disposition; juvenile statutes and court procedures.

235. Police Organization and Administration. (3-0). Credit 3.

Principles of organization and management as applied to law enforcement agencies; introduction to concepts of organizational behavior.

236. Traffic Planning and Administration. (3-0). Credit 3.

This course consists of the application of traffic problems from the administrative point of view, including engineering, education, and enforcement at the supervisory level.

238. Patrol Administration. (3-0). Credit 3.

Discussion of the administration of beat surveys, special problems arising while the officer is on patrol, improvement in patrol methods, observation of persons and things, preventive techniques, methods of handling complaints, and the development of contacts.

MACHINE TOOLS**Machine Tools Curriculum**

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Beginning Gas Welding 146.....	4	Machine Shop Practice 144.....	4
Beginning Arc Welding 145.....	4	Advanced Welding 142.....	4
Machine Shop Practice 143.....	4	Engineering Graphics 132.....	3
Approved Math.....	3	Introduction to Business 131.....	3
Psychology 111.....	1		
	16		14

COURSE DESCRIPTIONS**141. Beginning Welding. (2-4). Credit 4.**

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.

142. Advanced Welding. (2-4). Credit 4.

Electric, oxy-acetylene welding and torch cutting. Concentration on welding tests required by industry. Pipe welding. Precision torch cutting in preparing welding joints.

143. 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 blue print reading and precision measurement.

144. 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. Prerequisite: MT 143.

145. Beginning Arc Welding. (2-4). Credit 4.

Intensive classroom instruction will be conducted in electrical arc welding. Making fusion welds in all positions with various types of electrical welding equipment. A basic understanding of metal properties and characteristics will accompany all instructional materials.

146. Beginning Gas Welding. (2-4). Credit 4.

Intensive classroom instruction will be conducted in oxy-acetylene or related non-electrical welding. Fusion type welds will be made under a variety of positions, conditions and materials. Instruction will include use and operation of cutting torch type of equipment and cut-a-line metal cutting machines.

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.

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.

243. Machine Shop Practice. (2-4). Credit 4.

Intensified classroom instruction will be conducted in basic machine and equipment operation, designated for specialized machine operation skill, to include set up, fixturing, jig and fixture design and application, dimensional tolerances and precise operational control. Includes numerical control conversion and machine programming.

244. Welding Methods and Weld Fabrication. (2-4). Credit 4.

Intensive classroom instruction will be conducted in the advanced principles of weld methodology, work and operations planning, jig and fixture design and strength of materials. Includes instruction in setting up for weld operations and compliance with precision dimensional and/or design requirements.

245. Strength of Materials. (2-4). Credit 4.

Course is designed to provide technical and design students with a basic understanding of material specifications, physical limitations, strengths and critical properties. Study will include an analysis of loads and stresses pertaining to parts manufactured by casting, forming, welding and machining processes. Laboratory work includes material inspection and use of testing equipment.

MATHEMATICS

Mathematics Curriculum

Freshman Year

First Semester Subject	Hours	Second Semester Subject	Hours
Math 134.....	3	Math 232.....	3
Math 231.....	3	*Science or Foreign Language.....	4
*Science or Foreign Language.....	4	*Elective.....	3
English 131.....	3	English 132.....	3
History 131.....	3	History 132.....	3
Physical Education.....	1	Physical Education.....	1
Psychology 111.....	1		
	18		17

Continued

MATHEMATICS

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
*Math 233.....	3	*Math 234.....	3
English 231.....	3	English 232.....	3
Government 231.....	3	Government 232.....	3
Science 141.....	4	Science 142.....	4
*Elective.....	3	*Elective.....	3
Physical Education.....	1	Physical Education.....	1
	17		17

*Consult senior college catalogue for required or recommended courses.

This curriculum in mathematics pre-supposes a strong mathematical background acquired at the high school level. Students without a strong background in mathematics should enroll for Mathematics 132 and Mathematics 133 before taking Mathematics 134. Permission to pursue the curriculum as shown above must be obtained from the Chairman of the Department of Mathematics.

COURSE DESCRIPTIONS

130. 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.

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. Suggested prerequisite: 2 years of high school algebra successfully completed or Math 130.

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; binomial theorem. Prerequisite: 2 years of high school algebra successfully completed.

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. Prerequisite: 2 years of high school algebra.

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

Introductory concepts; the straight line; the circle; conic sections; transformation of coordinates; polar coordinates; parametric equations. Prerequisite: Math 132, 133, or consent of department chairman.

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

Symbolic logic; theory of sets; probability and statistics; mathematical induction. Prerequisite: Math 131 or equivalent.

138. Elementary Statistics. (3-0). Credit 3.

Collection and tabulation of data; bar charts; graphs; sampling; averages; dispersion, correlation; index number; normal curve; probability; inferential statistics with applications to various fields.

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

A first course in differential calculus. Prerequisite: Math 134 or concurrent enrollment in Math 134.

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

A first course in integral calculus. Prerequisite: Math 231.

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. Prerequisite: Math 232.

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

Fourier series, linear equations, solution by Laplace transforms and by series, application. Prerequisite: Math 233.

235. Math for Elementary Teachers. (3-0). Credit 3.

A course of contemporary mathematics with emphasis on sets and relations, elementary number theory, cardinal numbers, whole numbers, and fractions.

MUSIC

Music Curriculum

Freshman Year			
First Semester Subject	Hours	Second Semester Subject	Hours
English 131	3	English 132	3
History 131	3	History 132	3
*Music Fundamentals 131	3	Elementary Theory 132	3
**Applied Music	1-2	**Applied Music	1-2
Choir 111 or Band 113	1	Choir 112 or Band 114	1
Music Appreciation 130	3	Music Literature 133	3
Psychology 111	1	Physical Education	1
Physical Education	1		
16-17		15-16	

Continued

MUSIC

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
English 231	3	English 232	3
Government 231	3	Government 232	3
Music Literature 134	3	**Applied Music	2-3
**Applied Music	2-3	Advanced Theory 242	4
Intermediate Theory 241	4	Choir 212 or Band 214	1
Choir 211 or Band 213	1	Elective	3
Physical Education	1	Physical Education	1
17-18		17-18	

*Elementary Education majors may fulfill their music requirements by electing Music 131-132 and piano.

**Elementary Education majors and music majors having no previous instruction in applied music should select applied music courses numbered 111-112 for the freshman year for piano, voice or instrument.

COURSE DESCRIPTIONS FOR MUSIC

111. Choir. (1-2). Credit 1.

This course is recommended to all students who enter music courses, but it is open to all College students. Preparation for on-campus and public performances.

112. Band. (1-2). Credit 1.

A study of the band and orchestra music literature for solo instrument with orchestra accompaniment, quartets, and small ensembles and full band or orchestra conducting techniques and band organization. Preparation for on-campus and public performances. May be taken for credit four times.

130. Music Appreciation. (3-1). Credit 3.

This course is designed for the music student as well as for the non-music student. It emphasizes intelligent, directed listening to music with attention focused on the materials, the forms and the periods and styles of music.

131. Music Fundamentals. (3-1). Credit 3.

An introduction to the elements of Music: **Melody** (Pentatony — Seven tone, modal and diatonic scales, natural and artificial intervals), **Harmony** (simple progressions with primary root chords), **Rhythm** (absolute note writing). Ear training, reading and writing.

132. Elementary Theory. (3-1). Credit 3.

A continuation of Music Fundamentals 131. Harmonic progressions with secondary triads and 7th chords root position and inversions in major and harmonic minor keys. Ear training: dictation, reading and writing. Emphasis on relative solmization.

133. Music Literature. (3-1). Credit 3.

A survey of the development of music from the end of the Ancient World to the present time, with an in-depth study of the music from the 15th through the 19th Century. Principal forms, periods and composers and the literature of each of the historical periods.

134. Music Literature. (3-1). Credit 3.

A continuation of Music Lit. 133 with an in-depth study of music in the periods of the late 19th and 20th Centuries; the concurrent symphonic and concert literature of today, voice, choral and instrumental organizations.

241. Intermediate Theory. (3-2). Credit 4.

A continuation of Music 132. Progressions with altered chords. Modulations with common (pivot) chords. Chromatic, enharmonic and diatonic modulations. Ear training as before.

242. Advanced Theory and Harmony. (3-2). Credit 4.

A continuation of Music 241. Part writing in open harmony. Cantus Firmus. Harmony and Form analysis of classic (sonata and rondo), romantic and contemporary compositions. Ear training as before. Choral and orchestral score reading.

APPLIED MUSIC

Piano

111. Class Piano. Credit 1.

Beginning piano for all students not having previous instruction in piano. Introduction to the keyboard, major and minor scales and cadences up to 2 sharps and 2 flats. Performance of two or three easy pieces taken from the classic, romantic or contemporary piano literature; 2 selections from the Bartok "Mikrokosmos I", the Bach "Little Dances" and the Kodaly canons on the black keys. One hour class lesson per week.

112. Class Piano. Credit 1.

A continuation of Piano 111: keyboard skills in all scales, arpeggios and cadences. Performance of several pieces for the piano taken from the classic, romantic and contemporary literature, selections from the Bartok "Mikrokosmos II", Bach "Little Dances" Kodaly canons on the black keys and an easy Clementi Sonatina. One hour class per week.

121. Piano. Credit 2.

Student will be held responsible for all skills outlined in Piano 111 and 112. Performance of selections from the Bach "Short Preludes and Fugues", Czerny "School of Velocity I" and pieces from the classic, romantic and contemporary (American) piano literature, one Sonatina. One 45 minute lesson per week.

122. Piano. Credit 2.

A continuation of Piano 121: Bach Short Preludes and Fugues, Czerny Etudes, one classic Sonatina and selected pieces from the romantic and contemporary piano literature. One 45 minute lesson per week.

221. Piano. Credit 2.

This course includes the study of the Bach Two-part Inventions, or selections from the French Suites; a Sonata by Haydn, Mozart or Beethoven; romantic and modern compositions. All major and minor scales in octaves, 3rds and 6ths; major, minor, dominant and diminished 7th arpeggios. One 45 minute lesson per week.

222. Piano. Credit 2.

A study of the Bach Two-and Three-part Inventions, Suites and Partitas; a Sonata by Haydn, Mozart or Beethoven; one movement from a Concerto; romantic and modern compositions. All major and minor scales in octaves, 3rds and 6ths; major, minor, dominant and diminished 7th arpeggios. One 45 minute lesson per week.

231. Advanced Piano. Credit 3

This course includes the study of the "Well Tempered Clavichord" Preludes and Fugues by Bach; Czerny studies; a Sonata by Haydn, Mozart or Beethoven; romantic and modern compositions and one movement from a standard Concerto. All major and minor scales 4 octaves; major, minor, dominant and diminished 7th arpeggios 4 octaves. One hour lesson per week.

232. Advanced Piano. Credit 3.

A continuation of Piano 231: study of the "Well Tempered Clavichord" Preludes and Fugues by Bach; a Sonata by Mozart or Beethoven; one complete Concerto; Chopin Etudes, Debussy Preludes and selections from the standard piano literature. All major and minor scales; major, minor, dominant and diminished 7th arpeggios 4 octaves. One hour lesson per week.

Voice

111. Class Voice. Credit 1.

This is a course in which the beginning voice 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 hour lesson per week.

112. Class Voice. Credit 1.

A continuation of Voice 111. Technical exercises extended to arpeggios; Concone: 50 exercises medium difficulty; solo and ensemble works from classic and romantic sacred and secular literature.

221. Voice. Credit 2.

Student will be held responsible for all skills outlined in Voice 111 and 112. Course outline is same as Voice 211 with concentration on the preparation of a half recital program. One 45 minute lesson per week.

222. Voice. Credit 2.

Student will be held responsible for all skills outlined in Voice 111, 112, 221. Course outline is same as Voice 212 with concentration on the preparation of a whole recital program. One 45 minute lesson per week.

NURSING

The Associate Degree Nursing Program includes academic study in the college classroom designed to allow both the theoretical input and appropriate clinical assignment and practice to be synchronized to permit transfer of theoretical knowledge into nursing practice. 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. Three character references. 3. Acceptable scores on the ACT test. 4. Personal interview with an admission committee from the nursing faculty.

In order to maintain acceptable standing in the Nursing Program, the student must earn a "C" or better in each nursing and science course. An average grade of "C" for all related courses is also required of Associate Degree Nursing Candidates. Failure in any required requisite course will necessitate repeating the course before the student will be allowed to continue with nursing courses in sequence. These statements reflect additional requirements of a professional curriculum involving human health and safety.

Nursing Curriculum

Freshman Year			
First Semester		Second Semester	
Subject	Hours	Subject	Hours
Psychology 231.....	3	Psychology 233.....	3
Anatomy and Physiology 143	4	Medical-Surgical Nursing 192.....	9
Fundamentals of Nursing 161.....	6	Microbiology 144.....	4
Psychology 111.....	1		
Approved English.....	3		
	17		16
Summer Semester (6 Weeks)			
Subject	Hours		
Psychiatric Nursing 264.....	6		

Continued

Sophomore Year			
First Semester		Second Semester	
Subject	Hours	Subject	Hours
Sociology 231.....	3	Medical-Surgical Nursing 292.....	9
Maternal and Child Health Nursing 291.....	9	Nursing Seminar 233.....	3
Approved English.....	3	Chemistry 140.....	4
	15		16
Summer Semester (6 Weeks)			
Subject	Hours		
Social Science.....	3		
Social Science.....	3		
	6		

COURSE DESCRIPTION FOR NURSING

161. Fundamentals of Nursing. (3-9). Credit 6.

This course introduces the student to all phases of patient care. 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 pathology, rehabilitation, and prevention as well as sociological and psychological aspects. Hospitals and other health agencies are used for both observation and practice.

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. Special emphasis is placed on the nurse and family relationship in helping families to recognize and work out their health needs within the framework of community situations and available resources. The nursing problems of patients with conditions affecting Homeostasis, the body's response to injury, problems of mobilization and rehabilitation, gastrointestinal disturbances, gynecologic conditions, the communicable diseases, and care of the surgical patient are considered. Lectures, seminars, and nursing conferences will be utilized in addition to clinical practice. Prerequisite: Fundamentals of Nursing 161 and Anatomy and Physiology.

233. Nursing Seminar. (2-2). Credit 3.

A course concerned with present-day nursing, its historical development and its future. The student is introduced to philosophies and patterns of patient care, the planning and management of clinical care of patients is emphasized. Formal and informal organizational relationships and their influence upon nursing care are studied. Designed to enable the student to gain further knowledge and experience in the nursing process. Prerequisite: Nursing 161, 192, 291; upper division standing.

264. Psychiatric Nursing. (3-12). Credit 6.

Classroom and guided clinical experiences centering on prevention and treatment of psychiatric condition, including special therapies and the roles of the nurse in caring for emotionally ill persons. Students are guided in the techniques of interpersonal and intergroup relationships in giving nursing care. Community aspects of mental health are studied in various settings, including individual homes, hospitals, and other community agencies. Prerequisite: Medical-Surgical Nursing 192.

291. Maternal and Child Health Nursing. (4-15). Credit 9.

The mother, child, and family are considered as a community unit in this course. Experience in the nursing care of the mother during pregnancy, delivery, and post-partal periods, and the infant during the neonatal period are included, as well as selected experiences with the well child. Emphasis is placed on the different needs of children with illness due to the influence of developmental stages and pathological conditions. Health teaching and family problems of daily living are also discussed. Lectures, seminars, and nursing conferences will be utilized in addition to clinical practice. Prerequisite: Nursing 192.

292. Medical-Surgical Nursing. (4-15). Credit 9.

The health problems of the surgical patient involving the preparation, surgical experience, and the recovery and rehabilitation are considered in general. The specific areas included are care of patients with fluid and electrolyte imbalance, urinary conditions, problems of cardiovascular, pulmonary, neurological and endocrine systems. Nursing in a disaster-crisis situation is also considered. The student receives experience in team nursing which will enable her to attain knowledge of the duties and functions of the nursing team. Lectures, seminars, and nursing conferences will be utilized in addition to clinical practice. Prerequisite: Medical-Surgical Nursing 192.

PHOTOGRAPHY

First Semester Subject	Hours	Second Semester Subject	Hours
Introductory & Publications		Commercial Photography 144	4
Photography 141	4	Television Photography 241	4
Photographic Principles 142	4	Portrait Retouching 242	4
Portrait Photography 143	4	Color Photography 243	4
Introduction to Business 131	3	Business Elective	3
Business Elective	3		
	18		19

COURSE DESCRIPTIONS

141. Introductory and Publications**Photography. (2-4). Credit 4.**

The course teaches the handling of small cameras, film exposure and processing, contact printing and basics of enlarging. Flash and existing light photography is studied. Making news features, action photog-

raphy, and story-telling photographs; printing and composing photographs for publications are included.

142. Photographic Principles. (2-4). Credit 4.

The course includes elements of composition and film exposure-development for specific gamma, studied sensitometrically, advanced photographic printing, characteristics of papers, processing for contrast, print balance and toning are included. Principles of lenses, use of filters, and advanced focusing techniques studied.

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.

144. Commercial Photography. (2-4). Credit 4.

The course stresses press and view camera operation, product and architectural photography, advanced flash techniques, sheet film processing, commercial printing, use of professional cameras, enlargers and application of advanced gamma processing film.

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 motion picture camera.

242. Portrait Retouching. (2-4). 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.

243. Color Photography. (2-4). Credit 4.

The course includes study of primary and secondary colors of light, color temperature, color compensations in film exposure, the making of color slides for visual-education, theory of color negative systems and demonstrations of Type-C printing.

PHYSICAL AND HEALTH EDUCATION

Four semesters of physical education activity courses are required in most programs for graduation from Central Texas College. Most senior colleges also have this requirement. The same activity may not be taken more than twice.

Physical Education Curriculum

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
Approved Math	3	Approved Math	3
Physical Education 131	3	Physical Education 132	3
Physical Education	1	Physical Education	1
Psychology 111	1		
	<hr/> 18		<hr/> 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 231	3	Physical Education 235	3
Elective	3	Elective	3
Physical Education	1	Physical Education	1
	<hr/> 16		<hr/> 16

COURSE DESCRIPTIONS

Course No.	Title of Course
PE 110	Football and Basketball
PE 111	Volleyball and Softball
PE 112	Archery and Badminton
PE 113	Beginning Bowling
PE 114	Equitation
PE 115	Ballroom Dance
PE 116	Beginning Swimming
PE 117	Beginning Tennis
PE 118	Beginning Golf
PE 119	Basketball and Soccer
PE 210	Advanced Bowling
PE 211	Advanced Swimming
PE 212	Advanced Tennis
PE 213	Advanced Golf
PE 214	Tumbling
PE 215	Figure Development
PE 216	Advanced Badminton
PE 217	Modern Dance
PE 218	Men's Physical Conditioning
PE 219	Varsity Athletics

131. Foundations of 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.

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

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

218A. Health and First Aid. (1-1). Credit 1.

Health knowledge and practice with 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.

218B. Defensive Tactics. (1-1). Credit 1.

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.

218C Firearms. (1-1). Credit 1.

The moral aspects, legal provisions, safety precautions and restrictions governing the use of firearms; firing of firearms and shot-guns.

235. Safety and First Aid. (3-0). Credit 3.

Health knowledge and practice with 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.

SCIENCE

Biology Curriculum

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 133	3	Mathematics 134	3
Physical Education	1	Physical Education	1
Psychology 111	1		
	19		18

Continued

SCIENCE

Sophomore Year

First Semester Subject	Hours	Second Semester Subject	Hours
Biology 241	4	Biology 242	4
Chemistry 241	4	Chemistry 242	4
Government 231	3	Government 232	3
English 231	3	English 232	3
*Elective	3	*Elective	3
Physical Education	1	Physical Education	1
	18		18

COURSE DESCRIPTIONS FOR BIOLOGY

141. General Biology. (3-3). Credit 4.

Fundamental principles of living organisms, including chemical and physical properties of life, tissue organization and function, cellular processes, and genetics. Audio-tutorial method of instruction.

142. General Biology. (3-3). Credit 4.

Fundamental concepts and mechanisms of the organ systems of both plants and animals; includes ecology, adaptation, natural selection, and classification. Audio-tutorial method of instruction.

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

Human anatomy and physiology designed for nursing and pre-med majors. Laboratory includes extra readings, experiments, and taped instructional materials in vertebrate physiology.

144. Microbiology. (3-3). Credit 4.

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

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

Classification, comparison, anatomy and physiology of invertebrates. Specimens from the more important invertebrate phyla studies in the laboratory; field trips for collection of invertebrates required at minimal student expense. Prerequisite: Biology 141 or 142 or consent of the instructor.

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 required at minimal student expense. Prerequisite: Biology 141 or 142 or consent of the instructor.

Chemistry Curriculum*

Freshman Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Chemistry 141	4	Chemistry 142	4
German 141	4	German 142	4
History 131	3	History 132	3
**Mathematics 134	3	Mathematics 231	3
English 131	3	English 132	3
Physical Education	1	Physical Education	1
Psychology 111	1		
	19		18
Sophomore Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Chemistry 241	4	Chemistry 242	4
Mathematics 232	3	Mathematics 233	3
Government 231	3	Government 232	3
English 231	3	English 232	3
Physics 241	4	Physics 242	4
Physical Education	1	Physical Education	1
	18		18

*Check senior college catalogue as requirements vary.

**Students deficient in mathematics must take college algebra and trigonometry as remedial courses. These courses should be taken during the summer school term prior to the freshman year.

COURSE DESCRIPTIONS FOR CHEMISTRY

140. Introductory Chemistry. (3-2). Credit 4.

An introductory course which covers general principles of chemistry, descriptions of elements and compounds, chemical laws, and applications of chemistry to modern living, carbon and its compounds, foods, nutrition, and biochemical activity.

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

A thorough study of the modern concepts and fundamental principles of chemistry. Quantitative experiments are stressed during the first semester of laboratory, and the qualitative analysis of the common cations and anions and an introduction to quantitative analysis is studied in the second semester laboratory. Recommended: Two years of high school algebra or concurrent enrollment in Mathematics 132.

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

This course provides a thorough foundation in organic chemistry. A mechanistic approach is utilized in an integrated study of aliphatic and aromatic compounds. Extensive use is made of mechanisms and chemical bonding descriptions. Absorption spectra of organic compounds are studied. Prerequisite: Chemistry 141, 142.

Geology Curriculum

Freshman Year			
First Semester Subject	Hours	Second Semester 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.....	1	Physical Education.....	1
Psychology 111.....	1		
	19		18
Sophomore Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Mathematics 231.....	3	Mathematics 232.....	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.....	1	Physical Education.....	1
	17		18

COURSE DESCRIPTIONS FOR GEOLOGY

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

The physical nature of the earth and man's impact upon it. Basic geologic concepts, such as rock and mineral formation, diastrophism, plate tectonics, hydrology, and marine environments. Human problems such as the maintenance of non-renewable resources, reducing the effects of natural disasters, abating pollution by man, and coping with natural pollution. Field work included.

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

Principles of stratigraphy and paleontology, geologic time, continental drift, paleoclimatology, hypothesis of earth origin, collection and identification of local fossil fauna.

SPACE SCIENCE COURSE DESCRIPTIONS

131. Survey of Astronomy. (3-1). Credit 3.

A non-mathematical approach to the solar system. Beginnings of astronomy, motions of celestial bodies, minor members of the solar system, atoms and light. Planetarium and observatory used in lab work.

132. Descriptive Astronomy. (3-1). Credit 3.

A non-mathematical approach to the analysis of star light, stellar characteristics, stellar evolution, the sun, galactic characteristics, cosmology. Planetarium and observatory used in lab work.

COURSE DESCRIPTION FOR PHYSICS

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.

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.

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.

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.

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

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

SOCIAL SCIENCE

Freshman Year

First Semester Subject	Hours	Second Semester 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	1	Physical Education	1
Psychology 111	1		
	19		18

Sophomore Year

First Semester Subject	Hours	Second Semester 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	1	Physical Education	1
	16		16

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

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.

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.

Geography

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

The basic physical elements of geography: maps, landforms, climate, natural resources.

Government

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

Fulfills the legislative requirement for 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.

History

131. History of the United States to 1877. (3-0). Credit 3.

English colonization; the Revolution; adaptation of the Constitution; growth of nationalism; cotton and the slavery problem; war for southern independence. Reconstruction.

132. History of the United States from 1877. (3-0). Credit 3.

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.

133, 134. History of Western Civilization. (3-0). Credit 6.

A survey of the development of European civilization. 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 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.

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

Survey of the development of English society and government reviewing such topics as Roman Britain; the Anglo-Saxon conquest and institutions; Norman origins; decline of feudalism and rise of nationalism; the evolution of English Common Law; the development of Parliament; struggles between Church and State, Crown and nobles, nobles and commoners; King versus Parliament; the growing power of the Prime Minister; the Industrial Revolution; rise to world power; critical later years.

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.

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.

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

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

235. History of Religion. (3-0). Credit 3.

A study of the origin, progress, and development of the Christian religion. Attention will be given to the development of beliefs and the rise of denominations.

236. 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.

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.

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.

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

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

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.

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.

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

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

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.

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.

235. Social Psychology. (3-0). Credit 3.

The origin and development of personal behavior in interpersonal situations.

236. Marriage and Family. (3-0). Credit 3.

A study of problems in courtship, marriage and family living as they relate to the social structure of American society.

237. Introduction to Sociological Research. (3-0). Credit 3.

Collecting, analyzing and interpreting sociological data. Specification of theories as researchable propositions and procedures for verification.

TELECOMMUNICATIONS***Broadcast Communications Curriculum
Two Year Program**

Freshman Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Radio and TV Announcing 131.....	3	Station Management 133.....	3
Intro. to Broadcasting 132.....	3	Radio Programming 134.....	3
Communications Media 141.....	4	News Gathering and Reporting 142.....	4
English 131.....	3	English 132.....	3
Speech 131.....	3	Voice and Diction 132.....	3
Psychology 111.....	1		
	17		16
Sophomore Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Television Production 231.....	3	Television Programming 233.....	3
Traffic and Operations 232.....	3	Traffic and Operations 234.....	3
English 231.....	3	English 232.....	3
Psychology 231.....	3	Sociology 231.....	3
Government 231.....	3	Government 232.....	3
	15		15

*Students may earn a Baccalaureate Degree in Telecommunications to be granted by American Technological University located adjacent to Central Texas College. All credits earned in the Telecommunications Program at Central Texas College are transferable to American Technological University.

Broadcast Engineering Curriculum

Freshman Year			
First Semester Subject	Hours	Second Semester Subject	Hours
Math of Electronics 131.....	3	Math of Electronics 132.....	3
Introduction to Broadcasting 132.....	3	Station Management 133.....	3
Assembly Methods 135.....	3	Alternating Current Circuits 142.....	4
Direct Current Circuits 141.....	4	Vacuum Tubes and	
English 131.....	3	Semiconductors 143.....	4
Psychology 111.....	1	English 132.....	3
	17		17
Sophomore year			
First Semester Subject	Hours	Second Semester Subject	Hours
Television Productions 231.....	3	Television Programming 233.....	3
Solid State Devices 244.....	4	Communications Circuits 241.....	4
Solid State Circuits 245.....	4	Integrated Devices 246.....	4
Traffic and Operations 232.....	3	Test Equipment 144.....	4
Government 231.....	3	Government 232.....	3
	17		18

COURSE DESCRIPTIONS TELECOMMUNICATIONS

131. Radio and TV Announcing. (3-3). Credit 3.

This course introduces the student to the duties and responsibilities of the announcer such as operation of the audio console, audio-tape recorders, turntables, and other broadcast equipment. The principles of voice production, diction, microphone techniques, and practice in writing and presenting commercial copy, news coverage, and documentaries for radio and television production are also covered. Practical experience will offer opportunities to act as announcers for KNCT radio and television on-air programs. Preparation for the FCC Radio-Telephone Operators third class permit.

132. Introduction to Broadcasting. (3-3). Credit 3.

This is a survey course tracing the history of broadcasting from 1895 to the present including comparative systems of broadcasting, self-regulations, and broadcast practices. The social and ethical implications and responsibilities of the broadcaster are also investigated.

133. Station Management. (3-3). Credit 3.

The course covers the legal and ethical aspects of broadcast management including an in-depth study of the Federal Communications Commission rules and regulations for station licensing requirements and an investigation of copyright laws, libel and slander laws, unionism, human relations, codes of good practice, market analysis, audience surveys, and major issues of concern to the broadcast industry. The student will also study some practical problems of broadcasting such as designing the station or buying an existing facility, equipping the station, budgeting, staffing, programming, and determining the policies and procedural guidelines of operation.

134. Radio Programming. (3-3). Credit 3.

The major areas covered in this course are the fundamental techniques and practices required for production and programming for radio, the relationship of radio and television to other mass communication media, and broadcasting as a vehicle for the cultural, informational, and educational arts when broadcasting in the public interest as specified by the rules and regulations of the Federal Communication Commission.

231. Television Production. (3-3). Credit 3.

In this course the student will study the skills, practices, and techniques required for television camera operation, good sound perspective, set design, graphic arts, and lighting. Also covered in this course will be master control operations, including the use of the switcher, film chain, video tape recorder, and other equipment necessary to the act of broadcasting live studio productions and network affiliated programs.

232. Traffic and Operations. (3-3). Credit 3.

This course offers an in-depth analysis of the technical problems of operations involving program traffic, logs, schedules, internal sales, outside advertising agencies, markets analysis, and audience surveys. Also considered are the mechanics of programming relating to talent and talent representatives, music licensing companies, program production and service agencies, broadcasting associations, and network affiliations.

233. Television Programming. (3-3). Credit 3.

Emphasis will be placed on laboratory experiences in planning, writing, producing, and directing representative types of television programs common to the broadcast media. Practical experience will offer opportunities to work as announcers, cameramen, floor managers, lighting technicians, producers, technical directors, and video and audio engineers in live productions produced by KNCT-TV on-air programming.

234. Traffic and Operations. (3-3). Credit 3.

As a continuation of Telecommunications 232. This course offers an opportunity for the student to become involved in the practical application of knowledge and skills gained in Telecommunications 232. Guided learning experiences will be emphasized in the areas of program traffic operations such as maintaining program logs, production of station breaks and program promotions; organization of the television station's program image, coordinating network and local programming; receiving and shipping of program material from outside agencies such as video-tape libraries and motion picture distributors.

241. Communications Circuits. (3-3). Credit 4.

Modulation and demodulation circuits and design of antennas and transmission lines.

PRE-PROFESSIONAL PROGRAMS**Pre-Medical Pre-Dental***

First Semester		Freshman Year	
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	1	Physical Education	1
Psychology 111	1		
	<hr/>		<hr/>
	19		18

Continued

PRE-PROFESSIONAL PROGRAMS

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	1	Physical Education	1
<hr/>		<hr/>	
19		19	

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

Pre-Law**

Freshman Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131	3	English 132	3
Mathematics 131	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	1	Physical Education	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	1	Physical Education	1
<hr/>		<hr/>	
17		17	

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	1	Physical Education	1
Psychology 111	1		
<hr/>		<hr/>	
19		18	

Continued

PRE-PROFESSIONAL PROGRAMS

Sophomore Year

First Semester Subject	Hours	Second Semester 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	1	Physical Education	1
	19		19

Pre-Nursing*

Freshman Year

First Semester Subject	Hours	Second Semester 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	1	Physical Education	1
	16		18

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

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

CONTINUING ADULT EDUCATION PROGRAM

The purpose of the Continuing 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 area needs. These offerings serve both general and specific educational purposes.

The Continuing Adult Education Program is based on the philosophy that the entire population benefits when individual members are successful in meeting their own economic responsibilities and are skilled and competent in their chosen vocations. Generally, adult classes provide training for the individual rather than for employees of particular companies or organizations; and classes are open to the general public. However, special interest groups can also be accommodated within the scope and philosophy of the program.

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 that area. The programs of study herein described are designed to prepare people for jobs in business and industry, to insure job competency, and to provide a better understanding of civic responsibilities. In addition, avocational courses are available to promote more meaningful use of leisure time.

VOCATIONAL EDUCATION: Vocational courses are designed to offer educational opportunities above the high school level through which adults may qualify for initial employment, increase their vocational proficiency once they have obtained employment, and make satisfactory advancement within their chosen vocations. Area employers are periodically consulted for recommendations regarding the types of courses needed in the regional economy.

BUSINESS EDUCATION: Classes offered in business are the result of close and constant cooperation between the College and the 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. All business courses, including secretarial and clerical courses, are developed to provide adult students pre-employment and in-service training in knowledge and skills to meet occupational requirements of the area.

PRACTICAL ARTS: The appreciation of, and participation in, practical arts and vocational interests are essential to the welfare of 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 people find the real joy of living in the experiences of creation and apprecia-

tion. 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)**

GENERAL BUSINESS

Bookkeeping
Business Law and Banking
Business Letters and Banking
Money and Banking
Public Speaking
Negotiable Instruments
Business Administration and Banking
Banking Economics
Math for Retailing
Letter Writing
Business Speech
Rapid Reading for Business and Professional Personnel
Business Communications
Employee Communications
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
Local Recording Agents Qualifying Examination
(Approved by Texas Insurance Commission)
Life Insurance
Automobile Insurance
C. L. U.

BUSINESS MANAGEMENT

Bookkeeping for Small Businesses
Accounting Systems
Credit Management

Purchasing
 Personnel Supervision
 C. P. A. Review

REAL ESTATE

Real Estate Appraisal
 Real Estate Salesmanship
 Review Course for Brokers
 and Salesman License

OTHER NON-CREDIT COURSES

Federal Service Entrance Examination
 Basic Ceramics
 Women's Conditioning Class
 Great Books Lectures
 Anthropology for Beginners
 Blueprint Reading
 Basic Drawing
 Driver's Education
 General Education Development (GED)
 Basic Photography
 Beginning Welding
 Child Psychology
 Interior Decoration
 Defensive Driving (TSA and NSC approved)
 Oil Painting
 Public Relations
 Astronomy Lectures and Tours
 Defensive Tactics
 Conversational Spanish
 Flower Arrangement
 Geneology
 Income Tax Preparation
 Livestock Management
 Speed Reading for Adults
 Speed Reading for Children

SPECIAL REQUESTS

Other non-credit courses may be arranged to meet specific requests from interested community groups.

INDEX

A

Absences	38
Academic Load	35
Accounting Courses	60
Accreditation	3
Adding Courses	37
Address Change	45
Administrative Officers	13
Administrative Staff	13
Admission Requirements	23
Continuing Education Program	115
Agriculture Department	48
Air Conditioning Department	51
Airline Stewardess Program	50
Anthropology Courses	107
Art Courses	54
Associate in Applied Science Degree	28
Associate in Arts Degree	27
Associate in General Education Degree	28
Associate in Science Degree	27
Astronomy Courses	105
Athletic Program	42
Attendance Rules	38
Automotive Department	52

B

Bible Courses	108
Biology Courses	102
Board of Trustees	12
Bookkeeping Courses	65
Business Administration Department	56
Business Law Courses	62
Business Management Courses	60
Business Mathematics Courses	60

C

Calendars	14
Calendar of Events	15
Campus Dress	44
Campus, Location of	17
Career Pilot Technology Department	65
Certificate of Completion	28
Change of Address	45
Chemistry Courses	104
Class Hours	36
Class Membership	35
Classification of Students	35
Communications Department	68
Computer Maintenance Courses	71
Computer Science Department	74
Counseling	46
Course Numbers	36
Course Planning	36
Credit by Examination	26
Curricula	46

D

Degree Requirements	27
Degrees Conferred	26
Deposits	30
Discipline	44
Dormitories	42
Drafting and Design Technology Department	82
Dress	44
Dropping Courses	37

E

Earth Science Courses	105
Economics Courses	59
Education Department	78
Educational Objectives	19
Educational Philosophy	18
Electronics Technology Department	80
Engineering Department	82
English Courses	68
Entrance Examinations	25
Evening College	36
Examinations	37
Executive Officers	12

F

Farm and Ranch Management Department	48
Fees	29
Financial Aid Programs	30
Flow Chart of College Programs	22
Foreign Language Department	87
French Courses	87

G

G E D Tests	24
G I Bill	31
General Information	17
Geography Courses	107
Geology Courses	105
German Courses	87
Government Courses	107
Grade Points	40
Grade Reports	37
Grades and Point Averages	40
Graduation Requirements	27

H

Health Certificate	25
High School Requirements	24
Historical Background	17
History Courses	107
Honor Roll	39
Housing Policy	42

J

Journalism Courses	71
--------------------	----

L

Law Enforcement Technology Department	88
--	----

Library, Oveta Culp	
Hobby Memorial	41
Literature Courses	69
Loan Programs	30

M

Machine Tools Department	90
Mathematics Department	91
Message from the President	10
Military Credit	25
Military Educational Benefits	31
Music Courses	93

N

Non-Credit Courses	116
Nursing Department	97

O

Office Management Curriculum	57
Oveta Culp Hobby Memorial Library	41

P

Parking Regulations	46
Philosophy Courses	108
Photography Department	99
Physical and Health Education Department	100
Pre-Dental Curriculum	112
Pre-Law Curriculum	113
Pre-Medical Curriculum	112
Pre-Nursing Curriculum	114
Pre-Professional Programs	112
President's Message	10
Pre-Veterinary Curriculum	113
Programs of Study	47
Psychology Courses	108

R

Reading Courses	69
Real Estate & Insurance Management Curriculum	57
Refund of Tuition	30
Registration Requirements	24
Registration, What to Do Before	24
Residence Status	32
Restaurant Management	

Department	58
------------	----

S

Scholastic Honesty	38
Scholastic Probation	39
Scholastic Standards	39
Science Department	102
Servicemen's Opportunity College	20
Shorthand Courses	64
Social Science Department	106
Sociology Courses	109
Space Science Courses	105
Spanish Courses	88
Speech Courses	70
Stenography Courses	64
Student Center	42
Student Conduct	43
Student Discipline	44
Student Life	41
Student Organizations	41
Summer Sessions	36
Summons to Administrative Offices	45

T

Table of Contents	47
Tardiness	38
Television Servicing Courses	81
Telecommunications Technology Department	110
Textbooks	43
Transcripts	41
Transfer of Courses to Other Colleges	36
Transfer of Credits	20
Tuition	29
Tuition Refund	30
Typewriting Courses	64

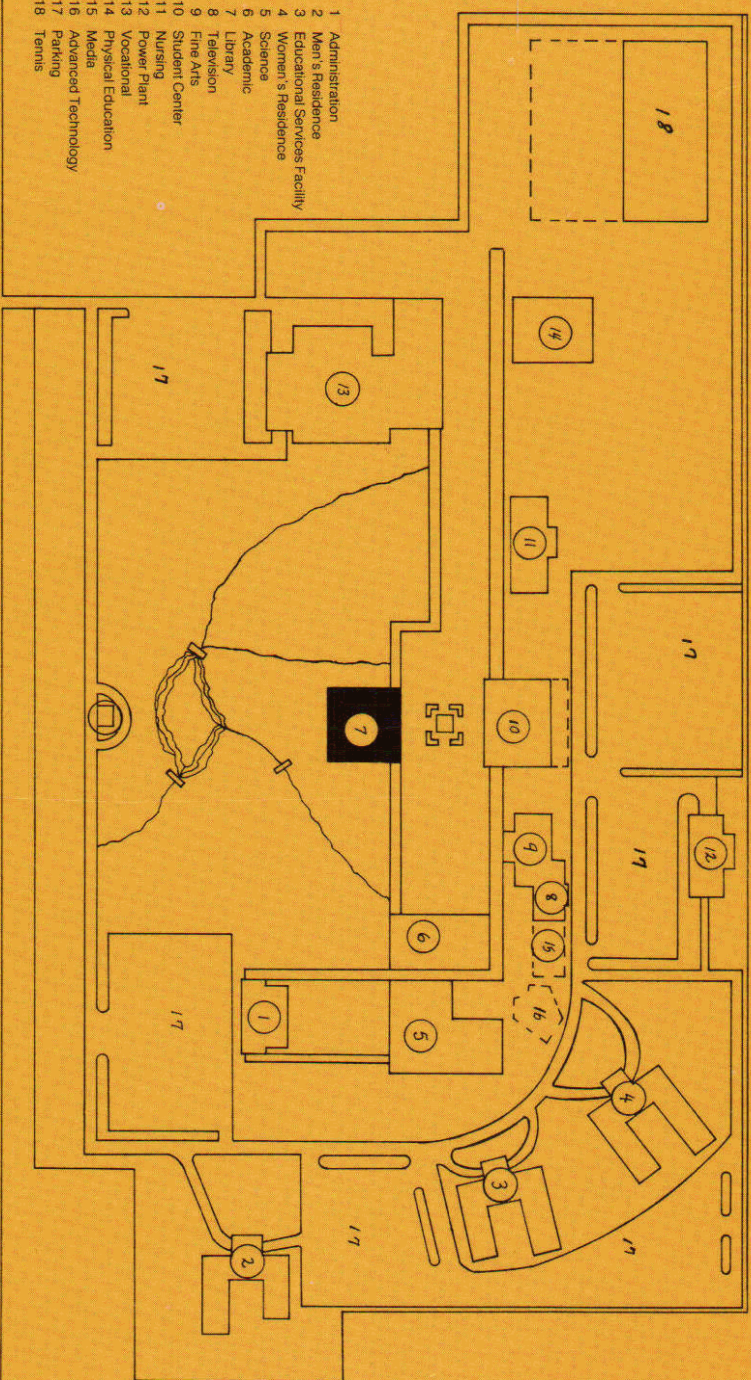
V

Veterans Readjustment Benefits Act of 1966	31
Visitors in a Class	35
Vocational Rehabilitation	31

W

War Orphans and Korean Veterans Benefits	31
Why You Should Attend Central Texas College	21
Withdrawal from College	40

Central Texas College CAMPUS MAP



KILLEEN

COPPERAS COVE