

Central Texas College



Central Texas College Administration Complex

1975-1977 Catalogue

Dedication



Central Texas College Dedicated by the 36th President of the United States

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."





College President

What an unusual story there is to tell about the birth, the growth, and the development of Central Texas College. Noted educational authorities had recommended that the State of Texas not authorize the creation of this college.

Why has this institution burst forth and succeeded in such a dramatic fashion? Obviously, the reasons for this success have been multi-fold. The people from the college district have supported this institution. The Board of Trustees, the administration and the faculty have worked in harmony to develop services for the students. Perhaps



of greatest significance, the students have understood the many frustrations which came from the creation of a new institution. From the very beginning, like older brothers and sisters looking after the younger, they have sacrificed, helped and protected the institution through the years. Future students will be the benefactors of these unselfish contributions. Tens of thousands of students from central Texas have attended Central Texas College which includes over 100 overseas sites scattered throughout Europe. This year alone, approximately 25,000 students will be served at the central campus or one of its overseas sites.

On behalf of the board of trustees, the administration and the faculty, I take the sincere and simple pleasure of welcoming you to Central Texas College. Thank you.

Respectfully, *L. M. Morton, Jr.*

Dr. Luis M. Morton, Jr.
President



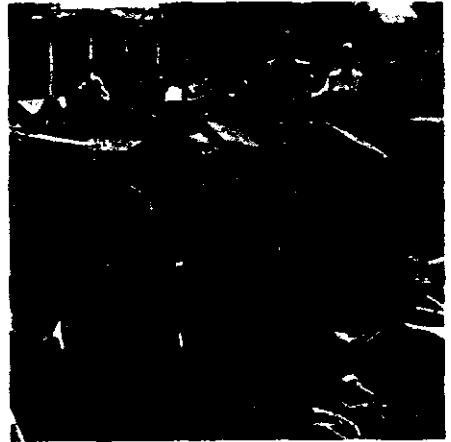
Graduation

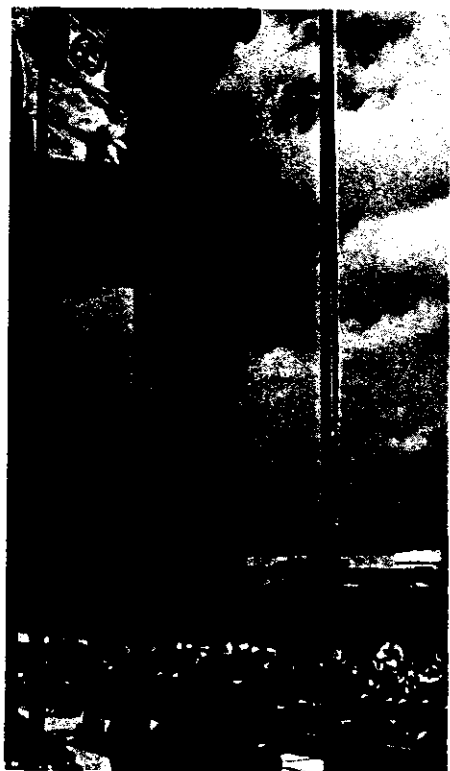
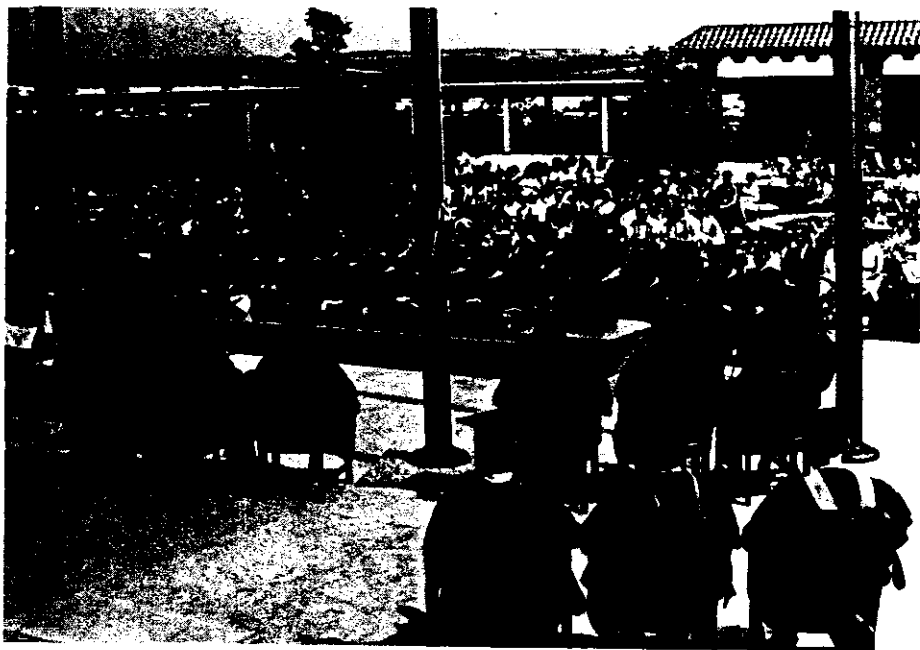


Dr. Terrell Howard Bell, U.S. Commissioner of Education, delivered the commencement address at the first joint graduation exercise of Central Texas College and American Technological University.

Graduation is held at the President Lyndon Baines Johnson Plaza, located in the center of the campus next to the Roy J. Smith Student Center.

Dr. Luis M. Morton, Jr., President of the College, confers the degrees to the graduates. The ceremony is carried "live" on television and radio throughout central Texas.



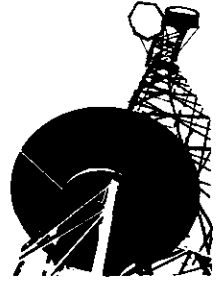


Board of Trustees

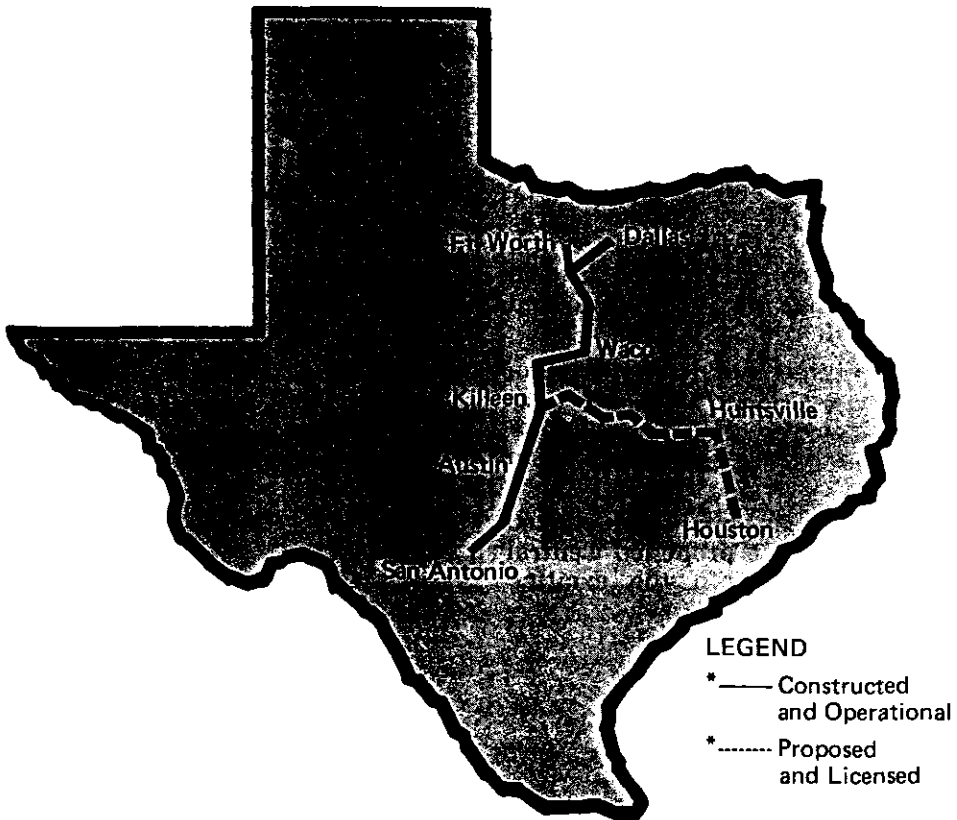


Standing from left to right: Marvin A. Mickan, Copperas Cove; William S. Bigham, Killeen, President; Dr. Luis M. Morton, Jr., Chief Executive Officer and President of Central Texas College; J. A. Darossett, Copperas Cove, Vice President.

Seated from left to right: Birt F. Wilkerson, Nolanville; Mrs. Linus D. Frederick, Copperas Cove, Secretary; W. A. Roach, D.V.M., Killeen, Treasurer; Guinn C. Fergus, Killeen.



Telecomputer Grid



Central Texas College has pioneered a microwave communications system — The Texas Telecomputer Grid — which encompasses a semi-futuristic concept. The network contains two-way audio, color video and data capabilities. The extensive network connects metropolitan, suburban and rural population centers with regional concentrations of computer and television resources.

The Texas Telecomputer Grid is a tool in the hands of educators, enabling them to evaluate and deliver quality materials so vital to the solution of major educational problems facing Texas and the Nation. Career educational programs will soon be provided to students throughout a statewide distribution network utilizing highly specialized programs.

Campus

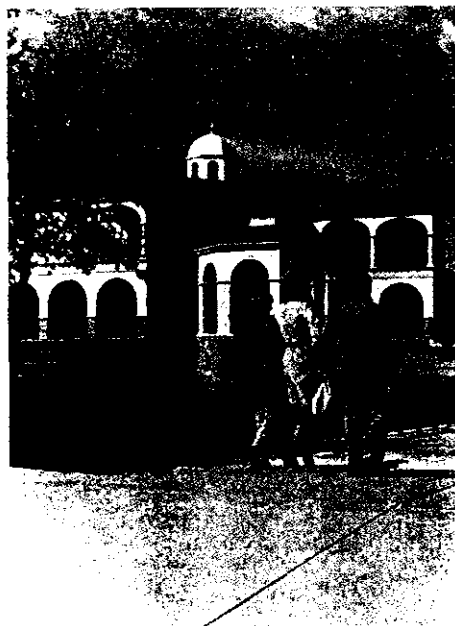


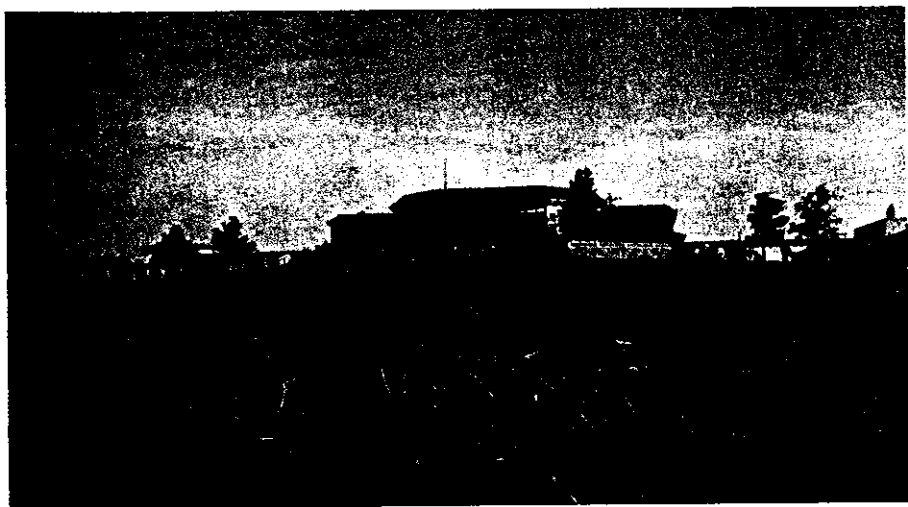
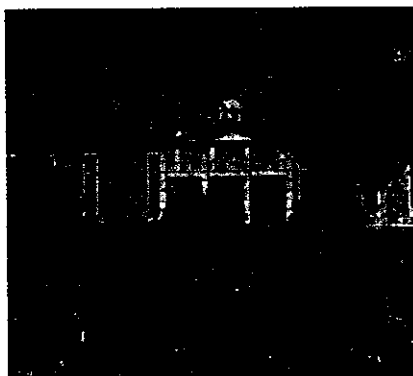
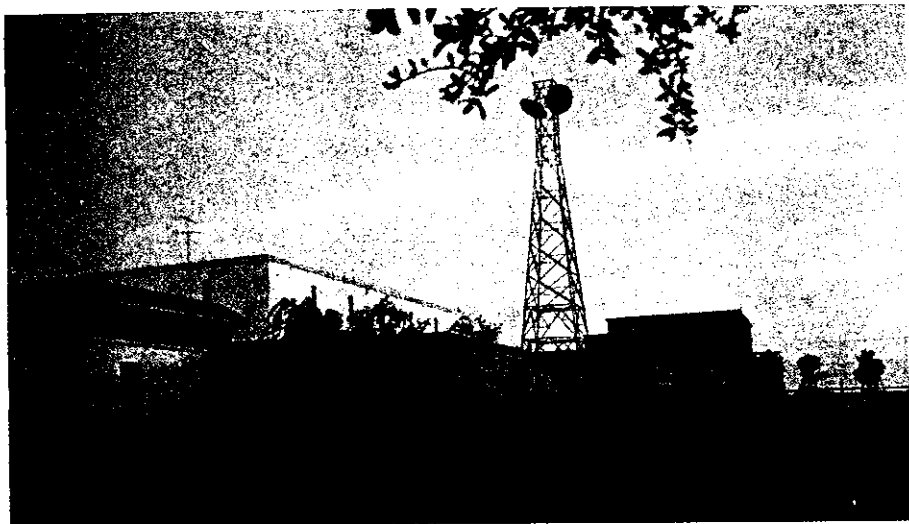
In just a few short years since 1967, Central Texas College claims many distinctions, one of which is its beautiful campus.

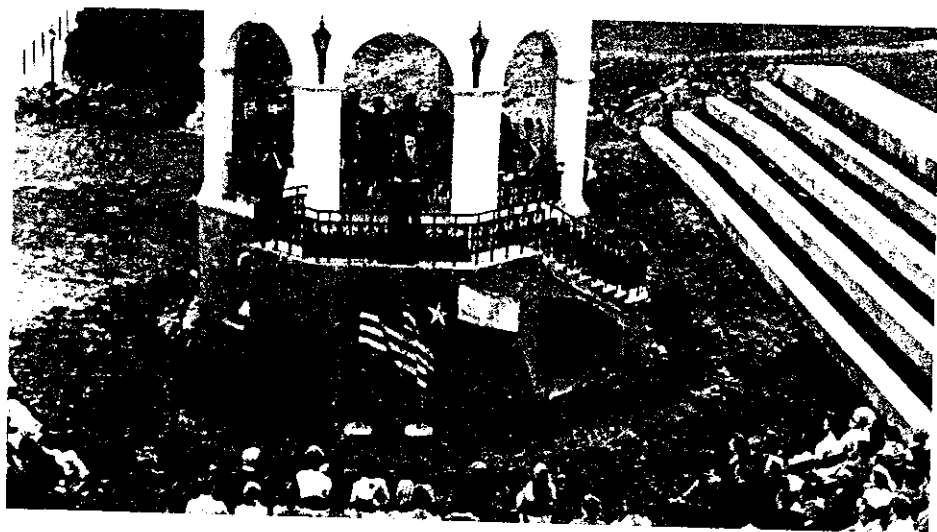
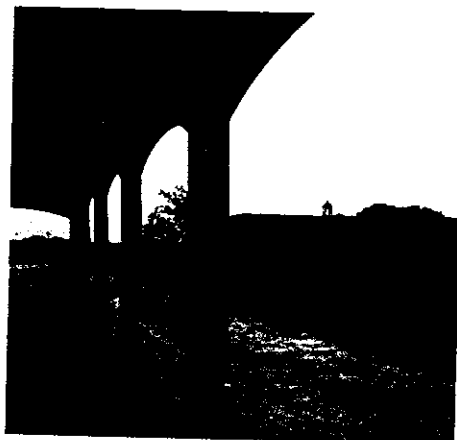
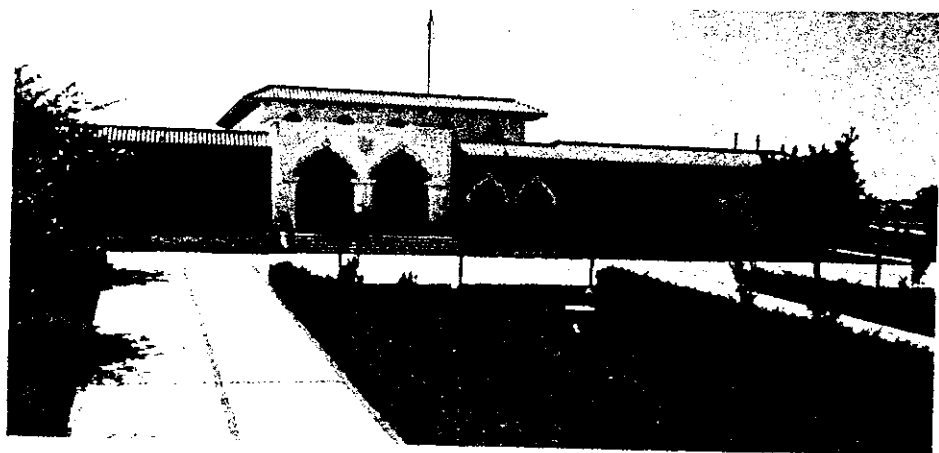
Central Texas College is located in the beautiful hill and lake country between Killeen and Copperas Cove. The classical Spanish exterior of each building is enriched with the soft blend of brick and mission tile roof.

New facilities, advanced instructional methods and an excellent faculty provide the maximum support to help the student succeed in whatever career he chooses.

Innovative concepts in advanced technology have propelled Central Texas College into the exciting realm of the 21st Century.









In Europe



Having supported the United States Army at home with a wide variety of educational programs tailored to meet the specific needs of the military, Central Texas College was chosen to serve our Armed Forces overseas. This commitment to provide educational training overseas came with the same thrust of dedication which is characteristic of Central Texas College.

Central Texas College in Europe provides the opportunity for higher education to those military serving our country in a foreign land. Technical-vocational training is offered at over 100 sites in Belgium, Germany, Italy, Holland, Spain, Turkey and the United Kingdom.

Executive Officers

Luis M. Morton, Jr. President
B.S., The University of Houston
M.L., The University of Houston
PH.D., The University of Texas
J.D., St. Mary's University
Post Doctoral Studies: Michigan State University,
University of Colorado

Phillip R. Swartz Vice-President
B.B.A., West Texas State University
M.B.A., West Texas State University
Post Graduate Studies, The University of Kentucky

Richard D. Wilson Vice-President
B.S., Lamar University
M.A., Stephen F. Austin University
Post Graduate Studies, The University of Texas

for Communications
and Development

Administrative Officers

John W. Moffitt
Dean of the College

John L. Phipps
Executive Dean for Overseas Programs

Administrative Staff

Sheridan D. Cavitt, Jr.
Dean of Admissions and Counseling

Curtis G. Davis
Director of Army Program
Central Texas College-Overseas

Robert L. Ellis
Assistant to the Dean for Adult and
Continuing Education

Fremont B. Hodson, Jr.
Director of Evening College

James R. Jimmerson
Director of Administrative Services
Central Texas College-Europe

Charlie G. Orsak
Director of Air Force Programs
Central Texas College-Overseas

Noel H. Schnitz
Director of Library Services

Elwood H. Shemwell
Assistant to the Dean for Operations

Ben H. Wickersham
Director of Occupational Education

1975

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1977

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Tentative Calendar

1975-76 Fall Semester 1975

July 15	Registration Begins
August 26	Faculty In-Service Meetings
August 27	Faculty Departmental Meeting
August 27	Orientation for New College Students
August 28	Final Registration
September 1	Labor Day Holiday
September 2	Instruction Begins
September 2	Tuition Refund of 50% Begins
September 9	Last Day for 50% Tuition Refund
September 10	Tuition Refund of 20% Begins
September 17	Last Day to Register
September 17	Last Day for Tuition Refund and to Pay in Full
September 17	Official Twelfth Class Day
October 27	Veterans Day Holiday
November 3	Last Day to Apply for Graduation
November 6	Last Day to Withdraw with a "W" from a Twelve Week Course
November 26	Last Day to Withdraw with a "W" from a Sixteen Week Course
November 27	Thanksgiving Holiday
December 1	Instruction Resumes
December 12	Instruction Ends
December 15-19	Final Examinations
December 19	Fall Semester Ends

Spring Semester 1976

November 24, 1975	Registration Begins
January 14	Faculty In-Service Meetings
January 15	Faculty Departmental Meeting
January 15	Final Registration
January 19	Instruction Begins
January 19	Tuition Refund of 50% Begins
January 26	Last Day for 50% Tuition Refund
January 27	Tuition Refund of 20% Begins
February 3	Last Day to Register
February 3	Last Day for Tuition Refund and to pay in Full
February 3	Official Twelfth Class Day
February 27	Last Day to Apply for Graduation
March 24	Last Day to Withdraw with a "W" From a Twelve Week Course
April 19-25	Spring Vacation
April 23	Last Day to Withdraw with a "W" From a Sixteen Week Course
April 26	Instruction Resumes
May 7-13	Final Examinations
May 15	Graduation Exercises

Summer Sessions
1976

First Six Weeks and Twelve Weeks Terms

May 27 Final Registration
June 2 Instruction Begins
July 4 Legal Holiday
July 8 Final Examination for First Six-Weeks Term
July 8 First Six Weeks Term Ends
August 12-13 Final Examination for Twelve Weeks Term
August 13 Twelve Weeks Term Ends

Second Six-Weeks Term

July 9 Final Registration
July 12 Instruction Begins
July 15 Last Day to Register for Second Six Week Term
August 13 Final Examination for Second Six-Weeks Term
August 13 Second Six-Weeks Term Ends

Fall Semester
1976

July 13 Registration Begins
August 23 Faculty In-Service Meetings
August 24 Faculty Departmental Meeting
August 24 Dormitory Students Report
August 26 Student Orientation for all New Day College Students
August 27 Final Registration
August 30 Instruction Begins
August 30 Tuition Refund of 50% Begins
September 6 Labor Day Holiday
September 7 Instruction Resumes
September 7 Last Day for 50% Tuition Refund
September 8 Tuition Refund of 20% Begins
September 15 Last Day to Register
September 15 Official Twelfth Class Day
October 25 Veterans Day Holiday
November 1 Last Day to Apply for Graduation
November 4 Last Day to Withdraw with a "W"
From a Twelve-Weeks Course
November 24 Last Day to Withdraw with a "W"
From a Sixteen Weeks Course
November 25 Thanksgiving Holiday
November 29 Instruction Resumes
December 10 Instruction Ends
December 13-17 Final Examinations
December 19 Fall Semester Ends

Spring Semester 1977

November 23, 1976	Registration Begins
January 12	Faculty In-Service Meetings
January 13	Faculty Departmental Meeting
January 13	Final Registration
January 17	Instruction Begins
January 17	Tuition Refund of 50% Begins
January 24	Last Day for 50% Tuition Refund
January 25	Tuition Refund of 20% Begins
February 1	Last Day to Register
February 1	Last Day for Tuition Refund and to Pay in Full
February 1	Official Twelfth Class Day
February 25	Last Day to Apply for Graduation
March 22	Last Day to Withdraw with a "W"
	From a Twelve Week Course
April 18-24	Spring Vacation
April 22	Last Day to Withdraw with a "W"
	From a Sixteen Week Course
April 25	Instruction Resumes
May 6-12	Final Examinations
May 14	Graduation Exercises

Summer Sessions 1977

First Six-Week and Twelve Week Terms

April 28	Registration Begins
May 27	Final Registration
May 30	Instruction Begins
July 4	Holiday
July 5	Final Examinations for First Six-Weeks Term
August 10-12	Final Examinations for Twelve Weeks Term
August 12	Twelve Weeks Term Ends

Second Six-Weeks Term

July 5	Final Registration
July 6	Instruction Begins
July 11	Last Day to Register for Second Six-Weeks Term
August 12	Final Examination for Second Six-Weeks Term
August 12	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.

Fifty-two married student apartments were completed for the Fall 1974 semester. The apartments are carpeted and air-conditioned and follow the same Spanish decor as all other buildings on the Central Texas College campus. Married couples may apply for furnished or unfurnished one or two bedroom apartments.

In December of 1974, a new 24 acre reservoir was begun just behind the educational facilities on the Central Texas College campus. The reservoir will provide needed irrigation for the Farm and Ranch Program, and will also provide a controlled environment for a Science Department research project to measure the impact of various species and subspecies of black bass on area lakes.

During the summer of 1975, the \$2.2 million Advanced Technology Building was completed. The 34,000 square foot building houses the control center for the Texas Telecomputer Grid (a duplex, microwave transmission system), the College's television and radio studios, and two computer laboratories. Construction of the building began in 1973 and the two-story structure complements the Spanish architecture of the other campus buildings.

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. It would be fitting to build a memorial to the thirty-sixth President of the United States, who had remarked earlier to a crowd of over 30,000 at Central Texas College in 1967, that Central Texas College was proof that America had entered the age of education in this country.

Mr. Roy J. Smith reminded the Board of Trustees that, "It is a spontaneous expression of appreciation by the people of the area toward 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 morning, December 10, 1970, 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 benefit from the Central Texas College educational television and radio stations, KNCT and KNCT/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.

7. *Placement*—The College provides a Student Placement Center to assist graduating students and alumni in bringing their qualifications to the attention of possible employers. Students who expect to receive an Associate Degree or a Certificate of Completion at the end of the Fall, Spring, or Summer semesters; and wish to have the opportunity for convenient on-campus interviews, are requested to register with the Placement Office located in the Administration Building.

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.

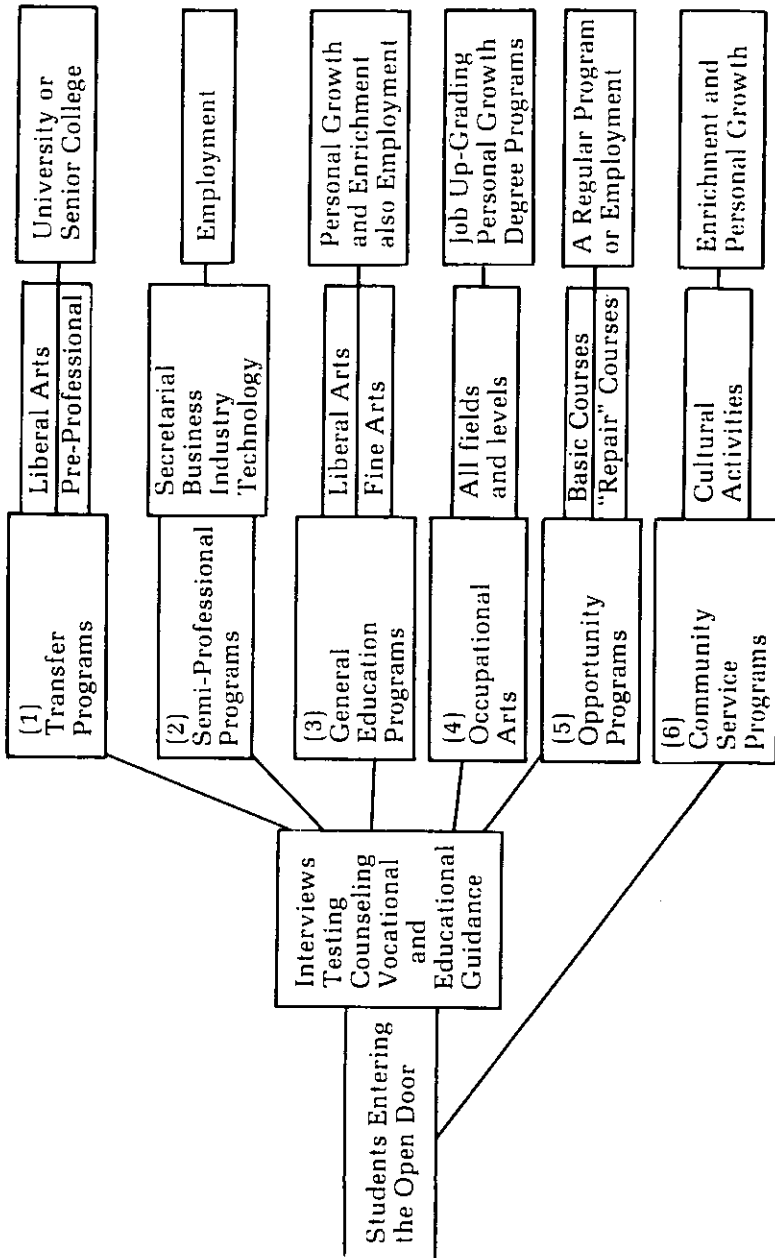
Precautions will be taken to see that each student is enrolled for the proper courses. Although the ultimate responsibility rests with each student to decide upon the institution to which he wishes to transfer and to see that he takes the proper course(s), Central Texas College recognizes its obligation 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.

Early Admission Program

The Early Admissions Program at Central Texas College offers an opportunity for high school Juniors or Seniors to earn college credits while concurrently enrolled in their high school.

The Program is available to any high school Junior or Senior, currently enrolled, for a sufficient number of credits for high school graduation, subject to the following conditions:

1. The student must have written approval of his high school principal or counselor.
2. The student must satisfy the daily attendance policy of his high school.
3. The student must furnish written approval of his parent or guardian.
4. The student generally will be limited to not more than two college credit courses per semester.
5. The student will be expected to adhere to all policies of the College and the high school which he attends.
6. Central Texas College assumes no responsibility for loss of eligibility of high school students enrolled under this program to participate in Interscholastic League activities.

College credits will not be granted until the student submits an official high school transcript showing that he has been graduated.

Students who meet the above criteria will be accepted in Central Texas College on individual approval.

Recommended High School Program*

Subjects	Freshman	Soph.	Junior	Senior
<i>English</i>	English	English	English	English
<i>Social Studies</i>		Elective	U.S. History	
<i>Mathematics</i>	Algebra	Geometry	Advanced Algebra for science majors; recommended for others	Advanced Mathematics for science majors
<i>Foreign Language</i>	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
<i>Physical Education</i>	P.E.	P.E.	P.E.	P.E.
<i>Electives</i>	Recommended for all precollege students: typing, art, music, and additional courses in science and social science.			

*This is a recommended program (not specifically required). 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. 6130) 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 Director of Student Affairs 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.

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 1974 *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

Students may request, in writing through the Director of Student Affairs, permission to take a challenge examination. The student will be sent an application for challenging a course which must be returned to the Business Office with a twenty-five dollar (\$25) non-refundable challenge fee. The student will then be notified as to the time and place to take the examination. Failure to show for the examination will result in the loss of the challenge fee.

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.

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. For entering freshmen who submit College Board scores, College credits may be earned in English 131 and Math 131 for superior achievement on the S.A.T. and/or achievement tests/Advanced Placement Tests.

Degrees Conferred

Central Texas College will confer the degrees of Associate in Arts, Associate in Science, Associate in Applied Science, and Associate in General Studies. Degrees are ordered twice a year at the end of the Fall and Spring semesters respectively. It is the student's responsibility to make application for the degree. A person may be awarded only one degree from Central Texas College. The degree plan for receipt of a degree should be arranged with your departmental manager. Those pursuing an Associate in General Studies degree or other transfer degree should make an appointment early in the semester with the counseling office to initiate their degree plan.

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. If a course is repeated, the last grade earned in the course will be computed in the grade point average.
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.

Courses taken in Developmental Studies may not be used to satisfy degree requirements.

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 Studies

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 grade-point 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 Director 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 Director 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 at graduation.

Courses taken in Developmental Studies may not be used to satisfy degree requirements.

Schedule of Tuition and Fees

1975-76 Fiscal Year

TUITION

Central Campus

Semester Hours	Resident	Non-Resident	EUROPE All Students
1	\$25.00	\$ 75.00	\$ 34.00
2	25.00	90.00	68.00
3	25.00	100.00	102.00
4	30.00	125.00	136.00
5	36.00	140.00	170.00
6	44.00	160.00	204.00
7	52.00	175.00	238.00
8	60.00	200.00	272.00
9	64.00	225.00	306.00
10	68.00	235.00	340.00
11	72.00	245.00	374.00
12	75.00	250.00	408.00
13	77.00	260.00	442.00
14	81.00	270.00	476.00
15	85.00	280.00	500.00
16	89.00	290.00	
17	93.00	300.00	
18	95.00	310.00	

Individualized Instruction

Career Pilot

CP 130	\$ 730.00
CP 134	715.00
CP 234	850.00
CP 235	1,055.00
CP 235A	790.00
CP 235B	975.00
CP 236	555.00
CP 238	500.00
CP 238A	490.00
CP 239	1,220.00
CP 239I	695.00

Music

1 Semester Credit Hour ...	50.00
2 Semester Credit Hours ..	60.00
3 Semester Credit Hours ..	75.00

Welding

4 Semester Credit Hours ..	40.00
5 Semester Credit Hours ..	50.00

Physical Education

Firearms	15.00	Equitation	55.00
Bowling	20.00	All Others	8.00

Fees

Central Europe

STUDENT SERVICE FEE (All Laboratory Courses). \$ 8.00

STUDENT SERVICES FEE (Per Semester)

10 or more hours \$ 15.00

Less than 10 hours \$ 3.00

Graduation Fee..... \$ 10.00

Matriculation Fee \$15.00

Deposits

General Property Deposit \$ 10.00

Dormitory Property Deposit \$ 25.00

College Housing Deposit \$100.00

College Housing Deposit (with pets)..... \$200.00

College Housing Plan (Monthly)

One Bedroom Apartment \$195.00

Two Bedroom Apartment \$215.00

Resident Hall Room & Board Plan

(Per Semester)

Five Day Plan \$630.00

Seven Day Plan \$720.00

Athletic Plan..... \$846.00

Daily Occupancy Rate \$ 2.50

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.
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 Director of Student Affairs. A check for the authorized amount will be mailed to the address shown on the request form.
5. Refunds for summer sessions and special courses will be calculated on an apportioned basis equivalent to the 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". The Governing Board of each institution is required under this law to charge a non-resident registration fee and 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 eighteen (18) 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 eighteen (18) 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 18 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.

2.
 - a. An individual eighteen (18) 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 eighteen (18) 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 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 person who enrolls in an institution of higher education following separation from military service must be classified as a nonresident student unless, (1) the individual was a legal resident of Texas at the time of entry into military service and has not relinquished that residence, (2) the individual can prove that during military service he or she has, in fact, established a bona fide, legal residence in Texas at a time at least 12 months prior to registration, or (3) the individual has resided in Texas other than as a student for 12 months prior to registration and subsequent to discharge from service.
6. 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.
7. 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.
8. 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 Director of Student Affairs may make exceptions to this policy.

Visitors in a Class

Permission to visit a class may be granted by the Dean of the College. Such permission carries with it permission to listen and observe, but not to enter into class discussion or laboratory work. This is not to be considered auditing a class on a full-time basis.

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, without special overload permission.

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 generally in session four days per week. Most classes meet either on Mondays and Wednesdays or on Tuesdays and Thursdays. Some selective classes and labs meet on Friday. Most sixteen week classes meet for one and one half hours. Most twelve week classes meet for one hour and fifty minutes. Most six week classes meet for one hour and fifty minutes four days per week, Monday through Thursday.

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 Director of Student Affairs. The Director of the Evening College will approve course changes for Evening College students. A deadline date will be announced each semester, and no classes may be added after that date. Any classes dropped after the deadline will appear on the student's transcript with the appropriate designation of "W" 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 class upon recommendation of the instructor and approval of the appropriate administrator with a grade of "F".

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 the College 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 all students.

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 or "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 the college), 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.

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 the College will not grant excuses for absences. Students may be readmitted to class by the Dean; however, 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 subject to the policies of scholastic probation or suspension.

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 and Suspension

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, the student must achieve a 1.8 average the next semester enrolled. If the student is placed on academic probation he may be required to have a monthly conference with an academic counselor and/or his instructors. 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 being suspended from the College for one regular semester. Upon readmission, the student will again be placed on scholastic probation for the semester. Failure to meet the required standards after being readmitted will result in the student being suspended

from the College for two 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 Affairs 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.

*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.

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 Director of Student Affairs of the cause of absence. In such cases, the student is dropped from all classes, constituting withdrawal from the College, and a grade of "F" is recorded for all courses in which he was enrolled.

Transcripts

A Permanent Record showing the academic record of each student will be maintained by the College. Upon the student's written request, 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

To insure the right of privacy of the individual student, records maintained by the institution, including addresses, telephone numbers, etc., will be unavailable except as authorized in writing by the individual student. Such requests should be addressed to the Director of Student Affairs.

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 15 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 44,000 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 and 1974, 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 trophy awards.

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

Roy J. Smith Student Center

The first floor of the beautiful Roy J. Smith Student Center is complete with a bookstore, dining area and inner landscaped court, snack bar, a carpeted area with a wood-burning fireplace, beamed ceiling, and color television. A large private game room for recreation is also provided.

The second floor of the Student Center houses the spacious recreation center which is complete with pinball machines, pool tables, and ping pong tables. Also located on the second floor of the Student Center is another snack bar for the convenience of the students.

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

Dormitory

Central Texas College operates a beautiful, air-conditioned dormitory for men and women. Requests are honored on a first come, first served basis. A reservation deposit of \$25.00 is required for each room application. 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 from the Coordinator of Student Activities and Housing. Dorm students have access to a large recreational swimming pool located within the dormitory courtyard.

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 extracurricular 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 a previous address. This does not relieve the student of responsibility for requests made to him through correspondence at that previous address.

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.

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Agriculture

Leading to the Associate in Science Degree

First Year

<i>First Semester</i> Subject	Hours	<i>Second Semester</i> Subject	Hours
Agriculture 131	3	*Agriculture Elective	3
Biology 141	4	*Agriculture Elective	3
English 131	3	Biology 142	4
History 131	3	English 132	3
Mathematics 131	3	History 132	3
Physical Education	1	Physical Education	1
Psychology 111.....	1	—	—
—	—		17
	18		

Second Year

<i>First Semester</i> Subject	Hours	<i>Second Semester</i> Subject	Hours
Agriculture 234	3	*Agriculture Elective	3
Chemistry 141.....	4	Chemistry 142.....	4
Government 231.....	3	Government 232.....	3
English 231	3	English 232	3
*Elective	3	*Elective	3
Physical Education	1	Physical Education	1
—	—	—	—
	17		17

*Electives must be approved by the department chairman. Student should check requirements of college or university to which he intends to transfer.

Course Descriptions for Agriculture

AG 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.

AG 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.

AG 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.

AG 239. Natural Resource Conservation. (3-0) Credit: 3

An introduction to the conservation of renewable natural resources. It includes the development for multiple use of water, range, forests and wildlife.

Air Conditioning & Refrigeration

A two-year Associate in Applied Science Degree program

First Year

First Semester Subject	Hours	Second Semester Subject	Hours
Air Conditioning 140	4	Air Conditioning 142	4
Air Conditioning 141	4	Air Conditioning 143	4
Welding 146	4	Air Conditioning 144	4
Technical Mathematics 130 ...	3	Drafting & Design 130	3
Psychology 111	1		—
	—		15
	16		

Second Year

First Semester Subject	Hours	Second Semester Subject	Hours
Air Conditioning 241	4	Air Conditioning 243	4
Air Conditioning 242	4	Automotive 145	4
Drafting & Design 134	3	Management 136	3
Business 131	3	English 239	3
English 137	3		—
	—		14
	17		

Students receive a one year certificate upon satisfactory completion of the first year of the above curriculum.

Course Descriptions for Air Conditioning & Refrigeration

AC 140. Air Conditioning and Refrigeration Theory and Application. (2-4) Credit: 4

This course deals with the basic physical principles of an air conditioning system. Introduction to heat, heat movement, temperature, pressure, refrigerants, temperature pressure relationship to refrigerants, the refrigeration cycle, the major components of refrigeration systems and their relationship to each other. Introduction to the basic electrical devices found in air conditioning systems, i.e., motors, controls, etc. Use of special air conditioning tools and equipment, soldering and welding equipment. The use and care of specialized electrical testing and recording instruments is stressed.

AC 141. Basic Electrical Circuits. (2-4) Credit: 4

Instruction in basic electricity and its application. Introduces the student to the various electrical devices, their importance in electrical circuits, including those used in residential wiring. Methods of wire connections for new and repair service, making and testing electrical circuits, and the use of electrical measuring and testing equipment.

AC 142. Household Refrigeration Systems. (2-4) Credit: 4

Application to the refrigeration cycle to household refrigeration, including refrigerators, home freezers, and window air conditioning units. Instruction in service procedures for locating and correcting problems in the mechanical and electrical systems of units; trouble shooting, repairing and charging refrigeration equipment. Development of shop skills in the use of special refrigeration tools and equipment. Prerequisites: AC 140 and AC 141.

AC 143. Heating Systems. (2-4) Credit: 4

The study of types of heating equipment and their application. Services procedures for locating and correcting problems in heating systems. Study of manufacturers information on various heating units and equipment, to enable the student to determine proper installation. Prerequisite: AC 140 and AC 141.

AC 144. Residential Air Conditioning. (2-4) Credit: 4

Instruction in heat transfer through material, heat loss and heat gain calculations for residential heating and air conditioning systems, equipment selection and location, duct sizing and layout, controls and control circuits, installation and service procedures. Prerequisites: AC 140 and AC 141.

AC 241. Control Theory and Application. (2-4) Credit: 4

Instruction in the operation of control devices, how they can be applied and varied to achieve the designed conditions. Includes interpretations and drawings of schematic and pictorial control circuit diagrams. Prerequisites: AC 140 and AC 141.

AC 242. Commercial Refrigeration Systems. (2-4) Credit: 4

Types of commercial refrigeration units and systems. Instruction in controls and control circuits in commercial refrigeration. Heat loss and heat gain calculations for commercial applications, equipment selections, locating and piping procedures. Instruction in installation and service procedures for different systems. Prerequisites: AC 140 and AC 141.

AC 243. Commercial Air Conditioning Systems.**(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. Psychrometrics of conditioned air, duct design and layout, equipment selection and location, shop drawings, controls and control circuits for automatic conditioning of air. Prerequisites: AC 140 and AC 141.

Art

First 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

Second 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 courses.

Commercial Art

First Year

First Semester Subject	Hours	Second Semester Subject	Hours
English 131	3	Art 132	3
Art 131	3	Art 134	3
Art 133	3	History 132	3
History 131	3	Art 130	3
Engineering 131	3	English 132	3
Psychology 111.....	1	Physical Education	1
Physical Education	1		—
	17		16

Second Year

First Semester Subject	Hours	Second Semester Subject	Hours
Art 136	3	Art 238	3
Art 235	3	Art 236	3
Art 231	3	Approved Elective*	3
Approved Elective*	3	English 232	3
English 231	3	Government 231.....	3
Physical Education	1	Physical Education	1
	16		16

*Approved electives will be determined by the Art Department Chairman.

Courses Descriptions for Art

Art 130. Printing for Advertising Art. (2-4) Credit: 3

Fundamentals of various graphic techniques, classification of printing methods, composition, copy and art preparation, paper selection, type and letter styles and usage, trademarks, handlettering.

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

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

Art 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.

Art 135. Color Composition. (2-4) Credit: 3

Theory of color and form involving definite technical procedures in properties of color theory and its application to painting.

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

A life drawing course emphasizing structure and action of the human figure.

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

Introduction to landscape and problems of form, movement, value control, and composition in pencil, charcoal, conte crayon, ink, and washes.

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

A survey of the major and minor arts from prehistoric times to the 14th century.

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

A survey of the major and minor arts from the 14th century to the present.

Art 231. Graphic Media. (2-4) Credit: 3

Creative experimentation with line etching, serigraphy, and other print making media.

Art 232. Oil Techniques. (2-4) Credit: 3

Introduction to the techniques of oil painting with emphasis on color and composition.

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

Continuation of exploring the medium with emphasis on individual expression. Prerequisite: Art 232.

Art 234. Watercolor Painting. (2-4) Credit: 3

Painting in watercolor stressing techniques of the medium and composition.

Art 235. Advertising Art. (2-4) Credit: 3

An introduction to the basic processes and techniques of advertising art.

Art 236. Advertising Art. (2-4) Credit: 3

Advanced study of advertising art and production.

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

Study of the potentials of the medium with special attention given to study of three dimensional form, texture, and value.

Art 238. Interior Design. (2-4) Credit: 3

Home decoration with emphasis on use and recognition of principles of art, design, and color.

Art 239. Interior Decoration. (2-1) Credit: 3

A study to provide a working knowledge in well designed floor plans, interiors and furnishings.

Art 239A. Ceramics. (2-4) Credit: 3

An introduction to making of pottery by hand and wheel methods.

Art 239B. Ceramics. (2-4) Credit: 3

Continuation of techniques of pottery making.

Art 239C. Creative Hobbies I. (2-4) Credit: 3

A study of the major crafts, including weaving, other textiles, enamels 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 draft areas. Conducted as a workshop, each student choosing crafts of individual interest.

Art 239D. Creative Hobbies II. (2-4) Credit: 3

Continuation of Art 239C.

Art 239E. Art Metals and Lapidary I. (2-4) Credit: 3

Introduction to metal forming techniques and instruction in basics of cutting, grinding, and polishing gemstones.

Art 239F. Art Metals and Lapidary II. (2-4) Credit: 3

Continuation of metal work, introduction to the lost wax method of metal forming, and introduction to faceting of gemstones.

****Additional credits may be earned in these courses with the recommendation of the Department Chairman and approval of the Dean.**

Automotive Service and Repair

A two-year Associate in Applied Science Degree Program

First Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Automotive 141	4	Automotive 144	4
Automotive 142	4	Automotive 145	4
Automotive 143	4	Automotive 146	4
Technical Mathematics 130 ...	3	Welding 146.....	4
Psychology 111.....	1		—
	—		16
	16		

Second Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Automotive 241	4	Automotive 243	4
Automotive 242	4	**Technical Elective.....	6
Business 131	3	Management 136	3
English 137	3	English 239	3
	—		—
	14		16

Students receive a one year certificate upon satisfactory completion of the first year of the above curriculum.

****Technical Electives:** AT 261, AT 262. Technical Elective must be selected from these two courses, and approved by the Department Manager.

Course Descriptions for Automotive Service and Repair

AT 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.

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

A course designed to provide the student with an understanding of the ignition, starting, charging circuits; also alternators, voltage and amperage regulating systems, with special emphasis on testing equipment and electrical skills, in accordance with industry established standards.

AT 143. Brake and Steering Systems. (2-4) Credit: 4

A course designed to provide an understanding of the theory of operation and 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. The theory of operation, adjustment and overhauling of various types of steering and suspension systems utilizing the front end alignment unit and other equipment necessary for complete steering service.

AT 144. Fuel Systems. (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.

AT 145. 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 automotive air conditioning, with special emphasis on system re-charging and compressor service.

AT 146. Engine Diagnosis and Emission Control. (2-4) Credit: 4

A course designed to provide an understanding of engine trouble-shooting procedures, utilizing the oscilloscope analyzer and the theory of operation, adjustment, diagnosis, and repair of all types of emission control devices.

Prerequisites: AT 141, AT 142, and completion of, or concurrent enrollment in AT 144.

AT 241. Transmissions and Differentials. (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.

AT 242. 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.

AT 243. 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. Prerequisites: AT 141, AT 143.

**AT 261. On-Campus Automotive Shop Practice.
(1-15) Credit: 6**

A course designed to provide occupationally related classroom instruction, experiences, and service jobs on live automobiles in the Central Texas College automotive shop. Prerequisites: AT 141, AT 142, AT 143, AT 144, AT 145, AT 146, AT 241, and AT 242.

AT 262. Automotive Shop Practices. (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 are new car delivery preparations, state inspection, and general used car type repair. Prerequisites: AT 141, AT 142, AT 143, AT 144, AT 145, AT 146, AT 241, and AT 242.

Business Administration

University degree requirements for the BBA varies considerably. Each student should check with the catalogue of the university he plans to attend when he transfers for exact requirements.

First Year

First Semester Subject	Hours	Second Semester Subject	Hours
Science 141	4	Science 142	4
Business 231	3	Business 232	3
English 131	3	English 132	3
Math 135*	3	Math 136*	3
Psychology 231.....	3	Business 131	3
Psychology 111.....	1	Physical Education	1
Physical Education	1		—
	18		17

Second Year

First Semester Subject	Hours	Second Semester Subject	Hours
Business 241**	4	Business 242**	4
English 231	3	English 232	3
Government 231.....	3	Government 232.....	3
History 131	3	History 132	3
Elective.....	4	Speech 131 or 233	3
Physical Education	1	Physical Education	1
	18		17

*It is possible to substitute Math 231 (Differential Calculus) and Math 232 (Integral Calculus) for Math 135 and Math 136 if the student is going to enter such degree programs as actuarial science, business statistics, industrial management, and engineering route to the Bachelor of Business Administration degree.

**BBA majors may take two courses in accounting instead of two courses in foreign language to meet Central Texas College requirements for the Associate in Arts degree.

Course Descriptions for General Business

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

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

BUS 132. Consumer Economics. (3-0) Credit: 3

A study of consumer goods and services as related to the home and family problems and pitfalls associated therewith. This includes a study of family purchasing, advertising, commodity information, sales approaches from a consumer viewpoint and includes sources of advice and counseling. A course to permit the supervisor to better advise his subordinates on economic problems.

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

Introduction to economics 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 and population problems. (Macroeconomics)

BUS 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; the economic view of taxation and public expenditure; regional economics; international trade and finance; foreign economic policy. (Microeconomics).

BUS 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 and investments. Prerequisite: Business 242.

BUS 234. Intermediate Accounting. (2-3) Credit: 3

Investments; tangible and intangible fixed assets; liabilities; reserves; statement analysis; business combinations; reorganizations and price level impact on financial statements. Prerequisite: Business 233.

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

Emphasis on managerial uses of accounting data, budgets, controls, analytical technique and interpretation. A study of limitations of managerial information systems and reports. Prerequisite: Business 242.

BUS 236. Personal Finance. (3-0) Credit: 3

Personal and family accounts, budgets, budgeting control, bank accounts, borrowing, investing, standards of living, renting, home ownership.

BUS 241. Principles of Accounting. (3-3) Credit: 4

Analysis and recording of business transactions; use of journal and ledgers; accounting statements; payroll records and payroll taxes, introduction to partnership accounting, special journals and ledgers; voucher system.

BUS 242. Principles of Accounting. (3-3) Credit: 4

Continuation of Principles of Accounting I. Internal control; partnership and corporation accounting; accounting for manufacturing concerns; analysis and interpretation of statements. Prerequisite: Business 241.

Career Pilot

A two-year Associate in Applied Science Degree Program

First Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Career Pilot 131	3	Career Pilot 132	3
Career Pilot 133	3	Career Pilot 134	3
Career Pilot 130	3	Career Pilot 232	3
English 131	3	Career Pilot 135	3
Approved Mathematics	3	English 132	3
Psychology 111.....	1	Physical Education	1
Physical Education	1		—
	17		16

Second Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Career Pilot 231	3	Career Pilot 233	3
Career Pilot 234	3	Career Pilot 237	3
Career Pilot 230	3	Career Pilot 235	3
Government 231.....	3	Government 232.....	3
Physics 140	4	*Approved Elective.....	3
Physical Education	1	Physical Education	1
	17		16

*Approved Electives: CP 236, CP 238, CP 238A, CP 239, CP 239I, BUS 131, BUS 231, BUS 232, BUS 241, BUS 242, MGMT 135, MGMT 138, MGMT 232, MGMT235, MGMT 236.

CP 235A and CP 235B are substitutes for CP 234 and CP 235 for Rotary Wing Transition students.

Course Descriptions for Career Pilot**CP 130. Basic Flight. (.8-2.8) Credit: 3**

Flight training for completion of the Private Pilot Certificate. A minimum of 57 hours of instruction is provided, including 25 hours of dual flight, of

which two hours will be in the simulator. Twenty hours of solo flight and twelve hours of oral instruction and briefings. The instruction in the course more than meets the requirements for a Private Pilot Certificate. Prerequisite: CP 133, or concurrent enrollment.

CP 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.

CP 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, supercharges, engine accessories, controls and instrumentation.

CP 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 student has sufficient knowledge to pass the FAA written examination for the Private Pilot Certificate.

CP 134. Intermediate Flight. (.8-3.1) Credit: 3

First phase of Commercial Pilot training. A minimum of 63 hours of instruction is provided, including 15 hours of dual, of which 2 hours will be in the simulator. Thirty-five hours of solo flight and thirteen hours of oral instruction and briefings.

CP 135. Advanced Air Navigation. (3-0) Credit: 3

The Federal Aviation Regulations covering the privileges, limitations and operations of a commercial pilot. Basic Aerodynamics and the principles of flight which apply to airplanes. Inspection and certification requirements will be covered and operating limitation, high altitude operations, physiological considerations, weight and balance computations, significance of the use of airplane performance speeds, cruise control, and the Airman's Information Manual will be emphasized. Prerequisite: CP 133.

CP 230. Commercial Aviation. (3-0) Credit: 3

This course covers air traffic control procedures pertaining to Commercial Pilot, aviation weather and advanced navigational procedures. Advanced flight maneuvers, low altitude enroute charts, approach plates, and Airman's Information Manual. Also, airplane performance factors on a high performance aircraft with retractable gear and flaps and constant speed propeller. Prerequisite: CP 135.

CP 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.

CP 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.

CP 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 are reviewed.

CP 234. Advanced Flight. (.9-3.4) Credit: 3

Commercial and instrument flight training. A minimum of 69 hours of instruction is provided, including 20 hours of dual instruction with 4 hours in the simulator, 35 hours of solo, and 14 hours of oral briefings. Prerequisites: CP 134 and CP 230, or concurrent enrollment.

CP 235. Commercial Flight. (.8-3.1) Credit: 3

Commercial and instrument flight training to prepare the student for the FAA Commercial Pilot Certificate with Instrument Rating. A minimum of 63 hours of instruction is provided, including 30 hours of dual flight of which 5 hours will be in the simulator. Twenty hours of solo flight and thirteen hours of oral instruction and briefings. Prerequisite: CP 234 and CP 237, or concurrent enrollment.

CP 235A. Commercial Transition Flight I. (.8-3.1) Credit: 3

This is the first half of two courses to transition Commercial Rotorcraft Helicopter Pilots to Commercial Airplane Single Engine Land Rated Pilots. The course covers 63 hours of instruction which includes 20 hours of dual flight with 1 hour in the simulator, 30 hours of solo flight and 13 hours of oral instruction and briefings. Prerequisite: FAA Commercial Rotorcraft Helicopter Rating, Class II, FAA Medical and CP 230, or concurrent enrollment.

CP 235B. Commercial Transition Flight II. (.8-3.1) Credit: 3

A continuation of CP 235A to complete the requirements for a Commercial Single Engine Land Aircraft Rating. The course consists of 63 hours of instruction which includes 30 hours of dual flight of which 5 will be in the simulator and 5 hours in a complex aircraft; 20 hours of solo flight with 5 hours in a complex aircraft and 13 hours of oral instruction and briefings. Prerequisite: CP 235A.

CP 236. Multi-Engine Flight. (.8-.8) Credit: 3

This course of flight training leads to the FAA Multi-Engine Pilot Rating. This course is designed to give the advanced pilot a greater depth of aircraft experience. A minimum of 24 hours of instruction is provided, including 12 hours of dual flight and 12 hours of oral instruction and briefings. Prerequisite: CP 235 or a Commercial Pilot Certificate.

CP 237. Aviation Radio System. (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 and ATC procedures. Prerequisite: CP 230.

CP 238. Instructor Rating. (2.5-1.6) Credit: 3

This flight course prepares the experienced pilot for the FAA Certified Flight Instructor Certificate for airplane. Includes 25 hours of dual flight and 40 hours of oral instruction and briefings. Prerequisite: Commercial Pilot Certificate.

CP 238A. Instrument Flight Instructor. (1.4-1.4) Credit: 3

A program of advanced flight training to prepare the experienced Instrument Pilot to pass the FAA requirements for the Instrument Flight Instructor Certificate for airplane. A minimum of 44 hours of instruction is provided, including 20 hours of dual flight and two hours for FAA check flight, and 22 hours of oral instruction and briefings. Prerequisite: Certified Flight Instructor Certificate and Instrument Rating.

CP 239. Airline Transport Pilot. (1.7-1.7) Credit: 3

The Airline Transport Rating is the most comprehensive rating issued by the Federal Aviation Administration. Flight and ground training to qualify for the instruction is provided, which includes 25 hours of dual flight and two flight hours for the FAA Check Flight, and 27 hours of oral instruction and briefings. Prerequisite: First Class FAA Medical Certificate, Age 23, 1,500 hours of approved flight time, and Instrument Rating.

CP 239I. Instrument Flight. (1.9-2.2) Credit: 3

The necessary instruction to qualify for the FAA Instrument Rating. A minimum of 65 hours of instruction is provided, including 35 hours of dual flight and 30 hours of oral instruction and briefings. Prerequisite: Commercial Pilot Certificate.

Communications

English First 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
Psychology 111	1	Physical Education	1
Physical Education	1		—
	<hr/> 19		18

Second Year

First Semester Subject	Hours	Second Semester Subject	Hours
English 231, 232, 233, or 237***	3	English 232, 234, or 238***	3
Foreign Language 231	3	Foreign Language 232	3
Science 141*	4	Science 142*	4
Government 231	3	Government 232	3
Elective	3	Elective	3
Physical Education	1	Physical Education	1
	<hr/> 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.

***Check sophomore literature requirements at senior institution where student wishes to transfer. Most senior institutions will grant only lower-level credit for these courses.

***NOTE: English 231-232, 233-234, and 237-238 are paired courses. Though department majors may elect any pair of courses, they must take both courses in the pair to fulfill department degree requirements.

Course Descriptions for English

ENGL 130 English Fundamentals (3-0) Credit: 3

A study of basic composition skills with emphasis on sentence structure, paragraph structure and grammar.

ENGL 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.

ENGL 132. Composition and Rhetoric. (3-0) Credit: 3

An introduction to literature: the short story, poetry, drama, and the novel. Composition of short papers with emphasis on interpretation and analysis of literary selections, optional research paper. Prerequisite: English 131 or advanced standing.

ENGL 133, 134. English for Foreign Speaking Students. (3-2) Credit: 3

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.

ENGL 137. Business English. (3-0) Credit: 3

Fundamentals of grammar, punctuation, and sentence structure as employed in written business communications. Word study; sentence analysis; punctuation; paragraphing; planning. Required for all students majoring in Office Administration.

ENGL 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.

ENGL 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.

ENGL 233. World Literature. (3-0) Credit: 3

A study of masterpieces of Western World Literature from Homer through the eighteenth century. Prerequisites: English 131, 132.

ENGL 234. World Literature. (3-0) Credit: 3

A study of masterpieces of Western World Literature from the eighteenth century to the present. Prerequisites: English 131, 132.

ENGL 237. American Literature. (3-0) Credit: 3

Survey 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 are studied, along with poetry and drama. Prerequisites: English 131, 132.

ENGL 238. American Literature. (3-0) Credit: 3

Survey from 1860 to the present. Considers the major literary movements in poetry, prose and drama. Prerequisites: English 131, 132.

ENGL 239. Technical Writing. (3-0) Credit: 3

The writing of technical reports. Oriented toward the technical/vocational fields. Recommended for all technical/vocational students.

Foreign Language

First Year

<i>First Semester</i> Subject	<i>Hours</i>	<i>Second Semester</i> Subject	<i>Hours</i>
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
Psychology 111.....	1	Physical Education	1
Physical Education	1		—
	—		18
	19		

Second Year

<i>First Semester</i> Subject	<i>Hours</i>	<i>Second Semester</i> Subject	<i>Hours</i>
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 Foreign Language

French

FR 141 Beginning French (3-3) Credit: 4

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

FR 142. Beginning French. (3-3) 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.

FR 231. Intermediate French. (3-0) Credit: 3

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

FR 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

GR 141 Beginning German. (3-3) Credit: 3

For those who have had no previous work in German. The essential grammar expression. Three laboratory hours per week are required for the memorization and presentation of German dialogues by the students.

GR 142. Beginning German. (3-3) Credit: 4

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

Spanish

SPAN 141. Beginning Spanish. (3-3) Credit: 4

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

SPAN 142. Beginning Spanish. (3-3) Credit: 3

This course is a continuation of Spanish 141, with continued emphasis on conversation. Prerequisite: Spanish 141.

SPAN 241. 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. Prerequisite: Spanish 141, 142, or two years of Spanish at an accredited high school.

SPAN 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.

Journalism

First Year

First Semester Subject	Hours	Second Semester Subject	Hours
Journalism 141	4	Journalism 142	4
English 131	3	English 132	3
History 131	3	History 132	3
Speech 131	3	Psychology 231	3
Elective*	3	Elective*	3
Psychology 111	1	Physical Education	1
Physical Education	1		—
	—		17
	18		

Second 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 232	3
Physical Education	1	Physical Education	1
	—	Elective	3
	13		—
			16

*Check with senior institution for appropriate course choice.

Course Descriptions for Journalism

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

This course is designed to give the student an understanding and respect for the mass media of the modern world. It includes a survey of all the mass communicative media, their purposes, and methods of operation.

JOUR 142. News Writing. (3-3) Credit: 4

Designed to acquaint the student with fundamental news gathering and writing techniques for the print medium. It includes instruction and practice in interviewing, writing, and discussion of news sources and values.

Speech

First 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
Speech 131.....	3	Speech 133.....	3
Speech 132.....	3	Theatre 132	3
Psychology 111.....	1	Physical Education	1
Physical Education	1		—
	18		17

Second 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
Speech 231.....	3*	Speech/Thet Elective	3
Speech/Thet Elective	3*	Theatre 231	3
Physical Education	1	Physical Education	1
	16		16

Course Descriptions for Speech

SPCH 131. Fundamentals of Speech. (3-0) Credit: 3

Instruction is given in speech preparation and delivery with emphasis on communication through audience analysis, gesturing, and vocal variety. Students will have opportunity for practice in the researching, outlining, and presentation of speeches.

SPCH 132. Voice and Diction. (3-0) Credit: 3

To develop and establish good vocal habits through a study of the principles and practices of the techniques involved in excellence of voice and diction. Drill work and materials for practice are selected to suit individual needs.

SPCH 133. Oral Interpretation. (3-0) Credit: 3

Study and practice in the principles of the oral reading of literature. Attention is paid to analyzing good literature and to recreating the logical and emotional content for an audience. Group oral interpretation is also studied.

SPCH 231. Persuasive Speaking. (3-0) Credit: 3

A course of study which emphasizes knowledge of audience and individual responses to the speaker supplied stimuli, emotional and logical reasoning. Practice in all types of persuasive speaking is an essential part of the course. Prerequisites: SPCH 131, 233 or consent of the instructor.

SPCH 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. Emphasis is on structure and techniques of presentation.

SPCH 111, 112. Forensic Practicum.

(1-2) Credit: 1 (Fall, Spring)

Practice of all types of speaking, reading, debating, and discussing skills. It is designed to prepare the student for contest work and may be repeated for credit.

THET 132. Basic Theatre Practice. (3-3) Credit: 3

A practical course in the elements of theatre production. Includes discussion of the hierarchy of the production staff, of the duties of each assigned position, and of the planning necessary to produce a play.

THET 133. Acting I. (3-3) Credit: 3

A basic course in the creation of characters which focuses on stage movement, use of voice, use of gestures, and concentration. The student will present solo, duet, and group scenes.

THET 134. Acting II. (3-3) Credit: 3

A detailed study of varying theories of acting and their practice. Attention will also be paid to acting styles and accents. The student will perform in various period scenes.

THET 231. History of the Theatre. (3-0) Credit: 3

A study of the progressive growth of the theatre through examination of the playwrights, designers, and actors in each period. The course will cover the period from the early Greeks through 1900.

THET 232. Stagecraft. (2-4) Credit: 3

Scene design and stage lighting. A study of lighting, equipment and methods, and a study of basic set design and structure, and a study of makeup for youth, old age and character.

THET 111, 112. Stagecraft Practicum.

(0-2) Credit: 1 (Fall, Spring)

Practice in all phases of play production. It may be repeated for credit.

*NOTE: Theatre majors should substitute THET 232 for SPCH 231 and should elect to take THET 133 and 134.

Computer Science

A two-year Associate in Applied Science Degree program

First Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Computer Science 143	4	Computer Science 138	3
Computer Science 135	3	Computer Science 139	3
*Elective	3	Computer Science 121	2
English 131	3	English 132	3
Mathematics**	3	Mathematics**	3
Psychology 111	1	Physical Education	1
Physical Education	1		—
	—		15
	18		

Second Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Computer Science 234	3	Computer Science 239A	3
Computer Science 243	4	Computer Science 238	3
*Elective 241	3	*Elective	3
Business 241	4	Business 242	4
Government 231	3	Government 232	3
Physical Education	1	Physical Education	1
	—		—
	18		17

*Approved Elective include 200 level courses pertaining to Mathematics, Business or Computer Science. Desired electives to be selected from other departments will require approval of Computer Science Department Manager.

**Mathematics Option—Students without a strong background in Math should enroll in Mathematics 131 and 132, College Algebra; Math 135, Finite Mathematics; and Math 138. Elementary Statistics are recommended for those with a strong mathematical background.

Computer Operator

A one-year Certificate program

First Semester Subject	Hours	Second Semester Subject	Hours
Computer Science 143	4	Computer Science 139	3
Computer Science 136	3	Computer Science 221	2
Computer Science 121	2	Computer Science 133	3
Office Administration 234	3	Business 131	3
English 137	3	*Elective	3
Psychology 111.....	1		—
	—		14
	16		

*Elective must be approved by Computer Science Department Manager

Electronic Data Processing Clerk

A one-year Certificate program

First Semester Subject	Hours	Second Semester Subject	Hours
Computer Science 130	3	Computer Science 136	3
Computer Science 121	2	Computer Science 133	3
Computer Science 131	3	Computer Science 132	3
Office Administration 234	3	Office Administration 235	3
English 137	3	Business 131	3
Psychology 111.....	1	*Elective	3
	—		—
	15		18

*Elective must be approved by Computer Science Department Manager.

Course Descriptions for Computer Science

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

Report Program Generator, a problem oriented language involving fixed program logic, file description, input, calculation, output of practical business oriented problems on card, tape, and disk systems.

CS 130. Computers and Society. (3-0) Credit: 3

A non-technical survey course intended for non-computer science majors which studies the role 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. An introduction to

data representation flow-charting and computer program logic is presented to the non-computer science major to write a simple computer program.

CS 131. Beginning Keypunching. (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.

CS 132. Advanced Data Entry. (1-3) 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.

CS 133. Computer Library Management. (2-3) Credit: 3

Concepts of data processing library management. Introduces card, tape and disk library management. Some on-the-job training is required for completion of the course.

CS 135. Introduction to Systems Analysis. (3-2) Credit: 3

Introduction to problems from business and science using logical and mathematical techniques particularly suited to characteristics of the digital computer. Problems involve qualification of descriptive data, manipulation of these data, and expression of analysis in descriptive terms. Includes documentation and flow-charting methods. Prerequisite: CS 143, or concurrent enrollment.

CS 136. Introduction to Computer Operations. (2-3) Credit: 3

Basic card handling procedures and machine applications with job execution at local and remote job entry stations. Includes concepts for operation of unit record and computer card systems.

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

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

CS 139. Computer Organization. (3-2) Credit: 3

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

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

This course is intended to be the first course for Computer Science majors and no prior knowledge of computers or programming is assumed. The programming language, FORTRAN, and flow-charting are introduced at

the beginning of the course so that the student will have a better idea of what a computer does before investigating how it functions.

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

CS 221. Computer Center Operations. (1-3) Credit: 2

This course is designed primarily to familiarize the student with workflow and throughput in a modern computer center. Involves actual work experience in the college's computer center. Prerequisite: CS 136.

CS 231. Introduction to Computer Center Management. (3-0) Credit: 3

Planning, organizing and controlling data processing installations. Managerial aspects in the introduction and use of computer systems and management concepts. Prerequisite: Twelve hours of Computer Science.

CS 232A. FORTRAN Programming. (3-2) Credit: 3

Theory and operation of digital computers and languages used to control logical and mathematical activities of computers. Number theory and logical systems applicable to computer design. Algebraic language programming. FORTRAN. Prerequisite: Six hours mathematics.

CS 232B. Programming for Business Statistics. (3-2) Credit: 3

Relevance of data processing in business; impact of computer systems on decision making; heuristic and algorithmic computing techniques using FORTRAN or BASIC to include computation of means and standard deviations, simple regression, contingency tables and curve plottings. Prerequisite: Math 135 and CS 143.

CS 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.

CS 235. PL/1 Programming. (3-2) Credit: 3

Business and scientific computer applications are developed using PL/1. Emphasis is placed on advanced programming concepts. Prerequisite: CS 143, CS 138.

CS 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.

CS 237. Field Projects. (0-6) Credit: 3

Practical application of course work in systems analysis and commercial or scientific programming depending upon students degree options. Prerequisite: Consent of Instructor.

CS 238. Systems Analysis. (3-2) Credit: 3

The methodology, techniques and tools used in performing in-depth analysis of information systems destined for computer implementation are described in their relationships within the overall study. The use and requirements associated with decision tables, study plans, testing plans and documentation are emphasized. Prerequisite: CS 135, CS 138.

CS 239A. Introduction to Operating Systems and Job Control Language. (2) Credit: 3

A study of computer operating system concepts including program libraries, program intercommunication and the structure and transportation of data sets. A Job Control Language (JCL) is taught in addition to the use of standard Utility Programs. Prerequisite: CS 138.

CS 239B. Introduction to Teleprocessing Systems.**(3-2) Credit: 3**

Requirements and fundamentals of a teleprocessing system's design and programming; transmission capabilities and control; program protection and relocation; features and application of transmission devices. Prerequisite: CS 239A, CS 243.

CS 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 139 and CS 143.

Developmental Studies

The Developmental Studies Program is designed to meet the educational needs of those students who require selective refresher course work prior to attempting college academic or technical vocational programs.

Entry into these courses is voluntary but definitely encouraged for those individuals who score low on entrance examinations. Trained counselors evaluate test results and prior experience in recommending course work. Some students may require refresher work in only one subject while others may require remedial training in several subjects.

Successful completion does not count toward degree requirements. However, results will be computed in grade point averages. Developmental courses are listed below.

ART 130A. Introduction to Fine and Applied Arts.**(3-0) Credit: 3**

An introductory course designed to give the student a fundamental understanding of the creation and appreciation of diverse modes of communicating ideas and emotions through different mediums, within the context of fine and applied arts. Provisions for special activities will ensure that a culturally heterogeneous student group may concentrate on building upon, learning and sharing expressive experiences unique to the student's cultural heritage.

BIOL 140. Introduction to Natural Science. (3-3) Credit: 4

A developmental course for the non-science major utilizing selected topics for biological science, principally related to the anatomy and physiology of man.

EDUC 130. College Study Skills. (1-2) Credit: 3

Designed for improvement of study systems. Emphasis is placed on highlevel study skills and the improvement of time management, effective listening and notetaking, marking tests, learning through media, concentration, retention of information and taking examinations.

GOVT 130. Exploring Societal Elements. (3-0) Credit: 3

Community-based social institutions, political, governmental and financial organizations and systems, and cultural complements are studied. Student needs, interests and deficiencies are identified and translated into course goals and objectives to be achieved. Extensive use is made of available community resource persons.

MATH 130A. Developmental Mathematics. (1-2) Credit: 3

An introductory course designed to identify deficiencies and provide a review of fundamental operations in mathematics, based on the individual student's identified need for compensatory work in basic arithmetic, algebra, and/or geometry.

PSCI 130. Introduction to American Institutions.**(2-1) Credit: 3**

An introduction to contemporary American social, economic and political institutions, with emphasis on foundations of civil liberty and the individual's right and responsibilities relative to equality and citizenship in a free country.

PSYC 130. Human Development. (3-0) Credit: 3

A course employing the basic principles of psychology, designed to help the student identify personal strengths and career interests, and to develop those interpersonal skills necessary for functioning in the student's chosen field or vocation. Care is taken to identify and build upon the student's strengths, especially as these are related to diverse cultural and/or native language capabilities, that may help assure success in the student's chosen field or vocation.

READ 130, 131. Reading and Comprehension.**(1-2) Credit: 6**

A course offered in a laboratory setting, using varied instructional techniques, designed to help students improve their proficiency in reading comprehension and rate, word recognition and vocabulary development.

SCI 140. Introduction to Physical Science. (3-3) Credit: 4

An introductory course for students who need to acquire a basic understanding of the philosophy and methods of science. A review of basic principles and theories and their application to problem solving, will be provided. Topics will be selected from various fields of physical science.

SPCH 130. Developmental Speech. (1-2) Credit: 3

An introductory course emphasizing structure and different techniques of presentation, as well as principles and methods of discussion. Designed to identify deficiencies and strengths, and to develop and improve interpersonal skills and the student's ability to communicate through effective speech.

WRIT 130. Developmental Writing. (1-2) Credit: 3

A course offered in a laboratory setting, using varied instructional techniques, designed to identify deficiencies and improve basic writing skills necessary for the student who intends to pursue college-level academic work.

Drafting and Design

A two-year Associate in Applied Science Degree program

First Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Drafting & Design 131	3	Drafting & Design 143	3
Drafting & Design 132	3	Drafting & Design 232	3
Drafting & Design 133	3	Drafting & Design 244	4
Technical Mathematics 130 ...	3	English 137	3
Psychology 111.....	1	*Elective	3
*Elective	3	Physical Education	1
Physical Education	1		—
	—		18
	17		

Second Year

First Semester Subject	Hours	Second Semester Subject	Hours
Drafting & Design 235	3	Drafting & Design 234	3
Drafting & Design 242	4	Drafting & Design 246	4
Drafting & Design 243	4	Drafting & Design 247	4
*Elective	3	*Elective	3
Physical Education	1	Physical Education	1
	<hr/> 15		<hr/> 15

*Approved Electives: DD 130, DD 134, MATH 131, MATH 132, MATH 133, ENGL 131, ENGL 132, MT 141, ART 131; Others by permission of Department Chairman.

Course Descriptions for Drafting and Design

DD 130. Blueprint Reading (2-2) Credit: 3

The fundamentals of blueprint reading and sketching as they apply to machine drawing.

DD 131. Engineering Graphics. (2-4) Credit: 3

Freehand and instrument drawing, dimensioning, fastening, pictorial methods, charts and graphs, projection drawings, geometry of graphical construction. Required for beginning engineering students. This course is a prerequisite for all drafting courses except DD 130 and DD 134.

DD 132. Advanced Drafting. (2-4) Credit: 3

A course mainly concerned with pictorials. Includes the theory of oblique and isometric drawings. Also covered are one and two point perspectives and shade and shadow applications. Prerequisite: DD 131.

DD 133. 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, and air brush. Prerequisite: DD 131 and DD 132.

DD 134. Blueprint Reading. (3-3) Credit: 3

The fundamentals of blueprint reading for the construction trades. The course includes familiarization with standard terms, sizes, scales, estimating and commercial practice.

DD 143. Machine Drawing. (2-4) Credit: 4

Drawing and manufacturing processes; training in producing various kinds of advanced drawings; commercial practices, and economics; the use of standard parts, sizes, symbols, and abbreviations. Prerequisite: DD 131 and DD 132.

DD 232. Descriptive Geometry. (2-4) Credit: 3

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. Prerequisite: DD 131.

DD 234. Principles of 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. Prerequisites: DD 131, DD 132, and DD 133.

DD 235. Air Conditioning and Pipe Drafting. (2-4) Credit: 3

Design and detailing of air conditioning equipment and duct work; design and detailing of pipe systems making use of standard practices and symbols; includes single line, double line, plan profile and isometric drawings of duct and pipe systems. Prerequisites: DD 131 and DD 232.

DD 242. Architectural Drafting I. (2-4) Credit: 4

A study of the preparation of architectural plans; elevations; sections; structural drawings. Prerequisite: DD 131.

DD 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 diagram; printed circuits; control circuits; and schematic diagrams. Some review of lettering and mechanical drawing principles. Prerequisite: DD 131.

DD 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. Prerequisite: DD 131

DD 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.

NOTE: must be taken during last semester of the sophomore year.

DD 247. Architectural Drafting II. (2-4) Credit: 4

Drawing for small commercial buildings, and multi-story residential designs with steel and concrete detailing. Prerequisite: DD 242.

TMTH 130. Technical Mathematics. (3-0) Credit: 3

A course designed to fill the needs of students in industrial and technical programs. To perform calculations and measurements and to solve mathematical problems for the shop, construction site, design and drafting rooms. It covers arithmetic fundamentals, development of "number sense", basic algebra, geometry, and the elements of the slide rule and calculating machines.

Education

First Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
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 111.....	1		—
	19		18

Second Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
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
	16		16

Course Descriptions for Education

EDUC 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.

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

A survey course in the social foundations of American education.

EDUC 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.

EDUC 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.

**EDUC 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.

EDUC 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 therapeutic 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. (6 hours speech).

**EDUC 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.

Electronics

Broadcast Electronics

A two-year Associate in Applied Science Degree Program

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Electronics 131	3	Electronics 132	3
Electronics 135	3	Electronics 142	4
Electronics 141	4	Electronics 143	4
Electronics 144	4	Computer Maintenance 241 ...	4
Engineering 131	3	English 137	3
Psychology 111	1		—
	18		18

Second Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Electronics 244	4	Electronics 247	4
Electronics 245	4	Electronics 233	3
Electronics 242	4	Electronics 234	3
English (Approved English) ...	3	*Elective	4
	15	*Elective	4
			18

*All electives must be approved by the Electronics Department Manager prior to registration. Technical Electives must be selected from the Broadcast Electronics, Computer Maintenance or Radio-Television Servicing curricula. Elective options include TV 146, TV 149, ET 246, and ET 248.

Course Descriptions for Broadcast Electronics

ET 131. Technical Mathematics I. (3-0) Credit: 3

A study of the basic concepts of math and algebra and the use of the slide rule and the electronic calculator in their manipulation.

ET 132. Technical Mathematics II. (3-0) Credit: 3

A study in the solution of trigonometric problems through the use of tables, slide rule, and the electronic calculator. Prerequisite: ET 131, or equivalent.

ET 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.

ET 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.

ET 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 Superposition Theorems in analyzing these circuits. Prerequisite: ET 141, or equivalent.

ET 143. Introduction to Electron Devices. (3-3) Credit: 4

An introduction to vacuum tubes, transistors, and other semiconductors, their composition, characteristics, theory of operation and circuit applications.

ET 144. Basic Test Equipment. (3-3) Credit: 4

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

ET 233. Special Intensive Study. (0-3) Credit: 3

An intensive study in the design, theory of operation, and construction techniques used in a field which holds special interest to the student. Prerequisite: Approval of the Department Manager.

ET 234. Broadcast-Equipment Maintenance. (1-6) Credit: 3

The operation, preventive maintenance procedures, and troubleshooting of modern day radio and television broadcast equipment. The course gives the student that much needed practical experience that can only be gained in a live station atmosphere. Prerequisite: ET 245, or equivalent.

ET 242. Advanced Test Equipment. (3-3) Credit: 4

The use and calibration of Test Equipment used in servicing complex electronic hardware. Observation of waveforms of electronic apparatus. Prerequisite: ET 144, or equivalent.

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

The study of the solid state devices used throughout industry, their characteristics and relations to circuits in both low and high frequency application. Prerequisite: ET 143, or equivalent.

ET 245. Communications Circuits I. (3-3) Credit: 4

A study of those basic circuits used throughout industry today. Prerequisite: ET 143, or equivalent.

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

A basic study of the many types of IC's in use today. The course will include digital, linear, and LED type devices.

ET 247. Communications Circuits II. (3-3) Credit: 4

A study of communications circuits necessary for the successful acquisition of an FCC first class license. Prerequisite: ET 245, or equivalent.

ET 248. Industrial Electronic Control Circuits (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 troubleshooting, and repair of these special purpose circuits. Prerequisite: ET 142, or equivalent.

Computer Maintenance

A two-year Associate in Applied Science Degree program

First Year

First Semester Subject	Hours	Second Semester Subject	Hours
Computer Maintenance 145 ...	4	Computer Maintenance 241 ...	4
Electronics 131	3	Electronics 132	3
Electronics 135	3	Electronics 142	4
Electronics 141	4	Electronics 143	4
Electronics 144	4	English 137	3
Psychology 111	1		—
	—		18
	19		

Second Year

First Semester Subject	Hours	Second Semester Subject	Hours
Computer Maintenance 242 ...	4	Computer Maintenance 247 ...	4
Computer Maintenance 243 ...	4	Computer Maintenance 248 ...	4
Electronics 242	4	Engineering 131	3
Electronics 244	4	*Elective	4
	—	Approved English	3
	16		—
			18

*Technical Electives must be selected from the Broadcast Electronics, Computer Maintenance, or Radio-Television Servicing curricula; all electives must be approved by the Computer Maintenance Department Manager.

Elective options include CM 239, CM 249, and ET 248.

Course Descriptions for Computer Maintenance

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

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

CM 239. On-Line Maintenance. (1-6) Credit: 3

The operation, preventive maintenance procedures and troubleshooting of modern day computer equipment. The course gives the student the much needed practical experience that can only be gained in a live computer atmosphere. Prerequisite: CM 243, or equivalent.

CM 241. Digital Circuits. (3-3) Credit: 4

A review of the basic gates and gating networks used in digital circuits, and an intensive study of Boolean Algebra, as well as the theory and operation of flip-flop, registers, and counter circuits. The course also covers numbering systems, arithmetical circuitry, and control element circuitry.

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

A study of the selection of memory devices, principles of storage, timing controls, operation, analysis of memory problems, troubleshooting and repair. Prerequisite: CM 241, or equivalent.

CM 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, circuits schematics, programming as a troubleshooting tool, flow-charting, and operational characteristics.

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

The study of pulse generation, shaping circuits, trigger circuits, synchronization and counting circuits. Prerequisite: CM 243, or equivalent.

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

The study of advanced diagnostic programming, including the finding, documenting and repairing of computer malfunctions. Prerequisite: CM 243, or equivalent.

CM 249. Peripheral and Interfacing. (3-3) Credit: 4

The study of machine peripheral interface techniques, including magnetic tape, paper tape, CRT, printer and card readers as well as industrial usage interface. Prerequisite: CM 243, or equivalent.

Radio-Television Servicing

A two-year Associate in Applied Science Degree program

First Year

First Semester Subject	Hours	Second Semester Subject	Hours
Television 141.....	4	Television 146.....	4
Television 145.....	4	Television 147.....	4
Electronics 135.....	3	Television 149.....	4
Electronics 144.....	4	Computer Maintenance 241 ...	4
Psychology 111.....	1		—
	—		16
	16		

Students receive a one year certificate upon satisfactory completion of the above.

Second Year

First Semester Subject	Hours	Second Semester Subject	Hours
Television 242.....	4	Television 235.....	3
Television 243.....	4	Television 249.....	4
Electronics 242.....	4	**Elective	4
Business 131	3	**Elective	4
*Elective	4	***English	3
	—		—
	19		18

*Students working toward an Associate in Applied Science degree must take ENGR 131 and ENGL 137 their first year. These courses may be taken during the first and second semesters of the first year, or during summer sessions.

**Technical Electives include TV 241, TV 244, TV 245, TV 246, TV 247, ET 245, and ET 247. Technical Electives must be approved by the Department Manager prior to registration. TV 245 may be taken twice for credit, with the approval of the Department Manager, provided a different category of electronics equipment is covered.

***ENGL 239, Report Writing and Correspondence is suggested.

Course Descriptions for Radio-Television Servicing

TV 141. Home Music System. (3-3) Credit: 4

A study in the specifications, theory of operation, and the interrelationships of those components used in the modern home music system; including Stereo and Quad receivers and amps, turntables, tape

decks, including reel to reel, eight track, and cassette formats, equalization networks, and mixing systems.

TV 145. Electronic Communications Fundamentals.

(3-3) Credit: 4

Course covers those basic electrical and electronic fundamentals and circuits used in modern applications, such as communications, sound, and test equipment.

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

A fundamental course covering the components, specifications, and installation techniques of sound reinforcement, public address, paging, and sound distribution systems.

TV 147. CATV and MATV Systems. (3-3) Credit: 4

Course covers fundamentals of design and servicing of TV antenna and head end systems and the distribution of TV signals in small or large "cable" systems.

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

A study of electron tube and semiconductor circuits peculiar to television receivers and practical methods for troubleshooting and servicing. Prerequisite: TV 145, or equivalent.

TV 235. TV shop Practices. (1-6) Credit: 3

An in-depth study of basic procedures used in the modern TV shop. Includes record keeping, stocking and order procedures, shop management, and advanced techniques of TV repair. Prerequisite: TV 149, or equivalent.

TV 241. Music System Servicing. (3-3) Credit: 4

A study in the analysis, diagnosis, and correction of a wide range of problems that appear in modern electronic music systems. Prerequisite: TV 242.

TV 242. FM-Stereo-Quad. (3-3) Credit: 4

An in-depth study of the circuitry, both discrete and integrated, used in today's AM and FM tuner amps, including both two and four channel multiplexing. Prerequisites: TV 141, TV 145.

TV 243. Tape Recorders and Turntables. (3-3) Credit: 4

A study of both the mechanics (including gears, pulleys, belts, and drive mechanisms), and electric circuits (for amplification, biasing, and equalization), in tape recorders and turntables. Prerequisites: TV 141, TV 145.

TV 244. VTR's. (3-3) Credit: 4

The basic theory, operation and repair of video tape recorders used in both home and industry. Emphasis is placed on the video aspect of these recorders. Prerequisite: TV 243.

TV 245. Electronic Trouble-Shooting. (3-3) Credit: 4

A study of those trouble-shooting techniques that apply to certain categories of electronic equipment. This course may be taken twice for credit with the approval of the program director, provided a different category of equipment is covered. Prerequisite: ET 242.

TV 246. Sound System Design and Servicing. (3-3) Credit: 4

Course covers those peculiar problems of sound reinforcement and distribution systems that can be encountered due to building design, speaker and microphone placement as well as routine problems. Prerequisite: TV 146.

TV 247. Closed Circuit TV. (3-3) Credit: 4

The principles of closed circuit television systems and components, including the theory and servicing techniques as applied to cameras, monitors, and coupling networks. Prerequisite: TV 149.

TV 249. Advanced Television Servicing. (2-4) Credit: 4

The operation and service of the more complicated television receiver circuits are covered in this course. Special attention is given to the use of techniques and equipment for the most economical solutions to difficult problems. Includes an introduction to transistorized and color television. Prerequisite: TV 149.

Engineering

First Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Engineering 131	3	Engineering 232	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
Psychology 111	1	Elective	3
Physical Education	1		—
	—		17
	18		

Second Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
History 131	3	History 132	3
English 231**	3	English 232**	3
Government 231	3	Government 232	3
Mathematics 233	3	Physics 242	4
Physics 241	4	Elective	3
Physical Education	1	Physical Education	1
	—		—
	17		17

*check senior college catalogue for specific science requirement. Variations occur with different senior colleges.

**Check senior college catalogue for Technical English requirement.

Course Descriptions for Engineering

ENGR 131. Engineering Graphics. (2-4) Credit: 3

Freehand and instrument drawing, dimensioning, fastening, pictorial methods, charts, and graphs, projection drawings, geometry of graphical construction. Required for beginning engineering students.

ENGR 232. Descriptive Geometry. (2-4) Credit: 3

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.

Environmental Control

A two-year Associate in Applied Science Degree program

First Year

<i>First Semester</i> Subject	<i>Hours</i>	<i>Second Semester</i> Subject	<i>Hours</i>
Environmental Control 131 ... 3		Environmental Control 132 ... 3	
Chemistry 141.....4		Environmental Control 133 ... 3	
English 1313		Chemistry 142.....4	
Speech 131.....3		English 2393	
Physical Education1		Mathematics 1333	
—		Physical Education1	
14		—	
		17	

Second Year

<i>First Semester</i> Subject	<i>Hours</i>	<i>Second Semester</i> Subject	<i>Hours</i>
Environmental Control 231 ... 3		Environmental Control 233 ... 3	
Environmental Control 232 ... 3		Environmental Control 234 ... 3	
Environmental Control 221 ... 2		Environmental Control 222 ... 2	
Biology 1444		Environmental Control 243 ... 4	
Physics 1414		Business 2313	
Physical Education1		Physical Education1	
—		—	
17		16	

Course Descriptions for Environmental Control

EC 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.

EC 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).

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

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

EC 221. Pollution Abatement Seminar. (2-0) Credit: 2

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.

EC 222. Pollution Abatement Seminar. (2-0) Credit: 2

A continuation of EC 221.

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

Sources of air pollution-industrial, municipal, automotive; physical and chemical nature of air pollutants. Laboratory techniques for detecting air pollutants. Control and treatment of air pollution.

EC 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.

EC 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.

EC 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.

EC 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, fluorides, iron, manganese, bactericides, nitrates, and organic compounds which may be present in water. Qualitative and quantitative analysis are to be stressed in this area.

Farm and Ranch Management

A two-year Associate in Applied Science Degree program

First Year

First Semester Subject	Hours	Second Semester Subject	Hours
Farm & Ranch Management 135	3	Farm & Ranch Management 134	3
Farm & Ranch Management 133	3	Farm & Ranch Management 136	3
Farm & Ranch Management 137	3	Farm & Ranch Management 138	3
Agriculture 131	3	Agriculture 132	3
Biology 141	4	Biology 142	4
Physical Education	1	Physical Education	1
	<hr/> 17		<hr/> 17

Second Year

First Semester Subject	Hours	Second Semester Subject	Hours
Farm & Ranch Management 231	3	Farm & Ranch Management 232	3
Farm & Ranch Management 233	3	Farm & Ranch Management 235	3
Farm & Ranch Management 237	3	Farm & Ranch Management 236	3
Agriculture 234	3	Farm & Ranch Management 238	3
English 137	3	Mathematics 137	3
Physical Education	1	Physical Education	1
	<hr/> 16		<hr/> 16

Farm and Ranch Production

A two-year Certificate program

First Year

<i>First Semester</i> Subject	Hours	<i>Second Semester</i> Subject	Hours
Farm & Ranch Management 135	3	Farm & Ranch Management 134	3
*Farm & Ranch Management 133	3	Farm & Ranch Management 136	3
Farm & Ranch Management 137	3	Farm & Ranch Management 138	3
Agriculture 131	3	Agriculture 132	3
	—		—
	12		12

Second Year

<i>First Semester</i> Subject	Hours	<i>Second Semester</i> Subject	Hours
Farm & Ranch Management 231	3	Farm & Ranch Management 232	3
Farm & Ranch Management 233	3	Farm & Ranch Management 235	3
Farm & Ranch Management 237	3	Farm & Ranch Management 236	3
Agriculture 234	3	Farm & Ranch Management 238	3
	—		—
	12		12

*AG 239—Natural Resource Conservation may be selected in place of FRMG 133—Wildlife Management

Food Production

A one-year Certificate program

First Semester Subject	Hours	Second Semester Subject	Hours
Farm & Ranch Management 135	3	Farm & Ranch Management 138	3
Farm & Ranch Management 137	3	Farm & Ranch Management 235	3
Farm & Ranch Management 233	3	Farm & Ranch Management 238	3
Farm & Ranch Management 237	3	Agriculture 132	3
	<hr/>		<hr/>
	12		12

Animal Production

A one-year Certificate program

First Semester Subject	Hours	Second Semester Subject	Hours
Farm & Ranch Management 237	3	Farm & Ranch Management 134	3
Farm & Ranch Management 137	3	Farm & Ranch Management 136	3
Farm & Ranch Management 233	3	Farm & Ranch Management 236	3
Agriculture 131	3	Farm & Ranch Management 238	3
Agriculture 234	3		<hr/>
	<hr/>		<hr/>
	12		15

Plant Production

A one-year Certificate program

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Farm & Ranch		Farm & Ranch	
Management 135	3	Management 138	3
Farm & Ranch		Farm & Ranch	
Management 231	3	Management 235	3
Agriculture 234	3	Farm & Ranch	
Agriculture 239	3	Management 238	3
	—	Agriculture 132	3
	12		—
			12

Course Descriptions for Farm and Ranch Management

FRMG 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.

FRMG 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.

FRMG 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.

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

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

FRMG 137. Animal Health. (3-2) Credit: 3

Students will study the basics of internal and external parasites, principal diseases of livestock, identification and control of diseases and pests.

FRMG 138. Vegetable Production. (2-3) Credit: 3

Principles and practices in producing vegetable crops, including organic gardening, soil management, composting, starting, transplanting and growing plants, insect control, fertilizing and harvesting. Laboratory consists of application of the above practices.

FRMG 231. Farm Mechanics. (2-3) Credit: 3

Basic farm skills in tool conditions, sketching, carpentry, concrete, farm surveying, and small engine repair.

FRMG 232. Farm Mechanics. (2-3) Credit: 3

A second course in farm shop skills for the agriculture student. Construction, repair and maintenance of farm machinery; covers metal work, including arc welding, oxy-acetylene welding, cutting, and soldering.

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

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

FRMG 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.

FRMG 236. Livestock Marketing. (3-2) Credit: 3

Areas of livestock production and consumption, problems of producers and consumers, study of the agencies concerned with processing and distribution of meat and by-products, slaughtering of livestock, future marketing. Use of farm and ranch records and accounts.

FRMG 237. Livestock Production. (3-2) Credit: 3

The principles involved in and the practical application of breeding, feeding, care and management of cattle, swine, sheep, poultry and rabbits. Fitting animals for livestock show will also be included.

FRMG 238. Food Preservation. (2-3) Credit: 3

The principles and practices involved in the processing and preservation of fruits, vegetables and other food products. Units to be included are field selection, processing, freezing, canning, curing and storing.

Hotel-Motel Management

A two-year Associate in Applied Science Degree program

First Year

<i>First Semester Subject</i>	<i>Hours</i>	<i>Second Semester Subject</i>	<i>Hours</i>
Hotel-Motel 132	3	Hotel-Motel 133	3
Restaurant Management 131...	3	Hotel-Motel 134	3
Management 136	3	Restaurant Management 133 ..	3
English 137	3	Business 241	4
Mathematics 137	3	Office Administration 138	3
Psychology 111.....	1	Physical Education	1
Physical Education	1		—
	—		17
	17		

Second Year

<i>First Semester Subject</i>	<i>Hours</i>	<i>Second Semester Subject</i>	<i>Hours</i>
Hotel-Motel 232	3	Hotel-Motel 235	3
Hotel-Motel 233	3	Hotel-Motel 236	3
Restaurant Management 135 ..	3	Hotel-Motel 231	3
Management 232	3	Hotel-Motel 234	3
Business 235	3	Restaurant Management 232 ..	3
Physical Education	1	Physical Education	1
	—		—
	16		16

Course Descriptions for Hotel-Motel Management

HM 132. Hotel/Motel Organization and Administration. (3-0) Credit: 3

This course includes management and organization of hotel industry, communications, accounting, personnel relations and administration, management of guests. Planning for today and tomorrow.

HM 133. Front Office Procedures. (3-0) Credit: 3

This course includes hotel organization and services, front office salesmanship, cashiering, front office posting, accounting for guest charges, procedures and form for accounting controls.

HM 134. Hotel/Motel Sales Promotion. (3-0) Credit: 3

This course includes sales planning, media advertising to include outdoor; radio and TV; mail advertising; personal sales; telephone selling; individual and group room business; food and beverage sales and sales incentive.

HM 231. Hotel/Motel Law. (3-0) Credit: 3

This course includes a study of the consequences resulting from a lack of foresight on the part of management, understanding of the attitudes of courts toward innkeepers involved in litigations, and an awareness of the responsibilities law imposes upon the innkeeper.

HM 232. Supervisory Housekeeping. (3-0) Credit: 3

This course includes organization of a housekeeping department of a hotel, job schedules, job breakdown, floor care, stain removal, fire inspection, purchasing records, equipment records, linen inventory and care, carpeting and care, and basic interior design.

HM 233. Food and Beverage Management. (3-3) Credit: 3

This course includes entire food and beverage operations from purchasing, receiving, storage, to preparation and service of same.

HM 234. Hotel/Motel Financial Management. (3-0) Credit: 3

This course includes accounting of business for creditors, owners and government; control of payroll and other operational expenses; and profit making management.

HM 235. Hotel/Motel Maintenance. (3-0) Credit: 3

This course includes a study of the organization, terms and concepts common to building maintenance. Maintenance functions to be studied include heating, plumbing, electrical, refrigeration and air conditioning, communications and signal systems, kitchen equipment, fire prevention and protection, and elevator systems.

HM 236. Recreational Services. (3-0) Credit: 3

This course includes the study of the needs of guest recreation and entertainment, space available for these activities, cost of operation and maintenance, layout and design and direct and indirect benefits.

Law Enforcement Technology

A two-year Associate in Applied Science Degree program

First Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Law Enforcement 131.....	3	Law Enforcement 137.....	3
Law Enforcement 132.....	3	Law Enforcement 138.....	3
Law Enforcement 133.....	3	Law Enforcement 139.....	3
Law Enforcement 134.....	3	Sociology 231.....	3
English 131.....	3	English 132.....	3
Psychology 111.....	1	Physical Education.....	1
Physical Education.....	1		—
	17		16

Second Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
*Law Enforcement Elective ...	3	*Law Enforcement Elective ...	3
Law Enforcement 234.....	3	Law Enforcement 238.....	3
**Elective.....	3	**Elective.....	3
Government 231 or 232.....	3	**Elective.....	3
Psychology 231.....	3	Speech 233.....	3
Physical Education 218B.....	1	Physical Education 218C.....	1
	16		16

Students receive a certificate of competency upon satisfactory completion of the core curriculum (LE 131, LE 132, LE 133, LE 134, LE 137, LE 138, LE 139), and the four PE courses (PE 218, PE 218A, PE 218B, LE 218C).

*Students desiring to major in a specific option should take the following courses:

Patrol/Traffic Majors: LE 135, LE 233, LE 236, LE 239

Correctional/Courts Majors: LE 136, LE 231, LE 237, LE 239A

**Approved Electives: Choice of course in Humanities, Social Science, or in Law Enforcement Administration. Electives must be approved by Law Enforcement Department Manager.

Course Descriptions for Law Enforcement

LE 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.

LE 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.

LE 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.

LE 134. Criminal Procedures 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.

LE 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.

LE 136. Survey of Corrections. (3-0) Credit: 3

A general course describing the history and evolution of the corrections process. Covers all aspects of institutional and community based corrections.

LE 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.

LE 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.

LE 139. 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.

LE. 231. Probation and Parole. (3-0) Credit: 3

Course will provide the student with some understanding of the evolution of criminal corrections and explore with the student the many avenues which the corrections field branches into. To develop in each student a basic understanding of the various types and methods of correction so that they can function efficiently in the field.

LE 233. Law Enforcement Seminar. (2-2) Credit: 3

A problem course. Prerequisite: Approval of Law Enforcement Department Manager.

LE 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.

LE 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.

LE 237. Penology (Jail Operation and Management). (3-0) Credit: 3

A survey of the basic concepts of penal and correctional rationale as employed by criminal justice administrators. An overview of the operation and management principles of the institutional setting will be examined in depth.

LE 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.

LE 239. Provost Marshal Operations. (3-0) Credit: 3

The principles of organization and administration as applied to the operational system of a military Provost Marshal's office, as well as that of the Inspector General's. Practical training in conduct of briefings, management, and attendant qualities of leadership, and some phases of dissent conditions which might impair role and mission of the post command.

LE 239A. Correctional Control and Administration. (3-0) Credit: 3

The course prepares the student to perform supervisory functions related to control of prisoners and contraband; segregation and accountability of prisoners; procedures required at a correctional facility; emergency measures; prisoner privileges; and the records and reports of the detention center.

Machine Tools Operator

A one-year Certificate program

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Machine Tools 141	4	Machine Tools 151	5
Machine Tools 142	4	Machine Tools 152	5
Drafting & Design 130	3	Machine Tools 153	5
Technical Mathematics 130 ...	3	Drafting & Design 131	3
Psychology 111.....	1		—
	—		18
	15		

Course Descriptions for Machine Tools Operator

MT 141. Precision Tools and Lay-out. (2-4) Credit: 4

A course designed to provide the student with an understanding of shop safety, reading and handling of precision tools, lay-out work and the operation of basic machine shop equipment, such as drill press, grinders and power saws.

MT 142. Engine Lathe-Cutting Tools. (2-4) Credit: 4

Theory and practice in basic metal working, hand and machine tool set up, operation, and maintenance. Basic lathe tool grinding.

MT 151. Advanced Engine Lathe. (2-6) Credit: 5

Theory and practice in laying out and setting up machine tools to perform selected work. Includes related instruction in basic metallurgy. Prerequisite: MT 142.

MT 152. Milling Machine: Set-up, Cutters and Tools. (2-6) Credit: 5

Practice in set-up and operation of vertical and horizontal milling machine and shaper, and detailed instruction in selecting cutters, feed rates, R.P.M. and material holders.

MT 153. Grinding Machines: Universal Cutters and Tools. (2-6) Credit: 5

Set up machine for grinding milling cutters, lathe tools and drills. Selection of proper grinding wheels.

Management

A two-year Associate in Applied Science Degree program, with a common first year for all Management students, and second year options of Business Management or Real Estate and Insurance Management.

First Year

First Semester Subject	Hours	Second Semester Subject	Hours
Management 135	3	Management 136	3
Management 134	3	Management 232	3
Office Administration 135	3	*Office Administration 133 ...	3
Office Administration 139	3	Office Administration 138	3
English 137	3	Mathematics 137	3
Psychology 111.....	1	Physical Education	1
Physical Education	1		—
	—		16
	17		

A certificate of proficiency as Managerial Assistant will be issued to students satisfactorily completing the above.

Second Year

First Semester Subject	Hours	Second Semester Subject	Hours
Management 239	3	Management 236	3
Management 235	3	Management 234	3
Office Administration 234	3	**Management Elective	3
Computer Science 130	3	Office Administration 235	3
Speech 233	3	Office Administration 237	3
	—		—
	15		15

*Level of typewriting will be determined by the student's previous training in these skills, and/or by placement tests. Students who receive advanced standing in Typewriting may chose an approved Management elective to fulfill hour requirements.

**Approved Management Electives: MGMT 137, MGMT 139, MGMT 231, MGMT 137A. Electives appropriate to the student's major will be determined by the Departmental Manager.

Real Estate and Insurance Management Option

Second Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Management 138	3	Management 233	3
Management 137	3	Management 238	3
Management 230	3	Management 237	3
Management 231	3	Office Administration 235	3
Office Administration 234	3	Office Administration 237	3
	—		—
	15		15

Approved Electives for Real Estate and Insurance Management: MGMT 234, MGMT 139, with approval of Department Manager.

Military Management

A two-year Associate in Applied Science Degree program

First Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Management 130	3	Management 134	3
Management 135A.....	3	Business 236	3
Management 136A.....	3	Mathematics 137	3
Business 132	3	Office Administration 138	3
English 137	3	Speech 131.....	3
Psychology 111.....	1	Physical Education	1
Physical Education	1		—
	—		16
	17		

Second Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Management 232	3	Management 239A.....	3
Management 239	3	Management 232A.....	3
*Elective	3	*Elective	3
*Elective	3	*Elective	3
Speech 233	3	History 231	3
Physical Education	1	Physical Education	1
	—		—
	16		16

*Approved Electives: MGMT 137, MGMT 137A, MGMT 139, MGMT 234, MGMT 235, MGMT 236, MGMT 239B, OA 237, BUS 241, BUS 242, SOC 239.

Course Descriptions for Management

MGMT 130. Military Organization and Staff Functions. (3-0) Credit: 3

A functional study of the development of U.S. defense policy; the organization, role and mission of the Department of Defense and the subordinate service departments; the organization, role and mission of the major commands of the Department of the Army; the organization and functions of the general and special staff at division level; and the organization and operations of the combat support and combat service groups.

MGMT 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. Application of specific programs to current organizational principles.

MGMT 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.

MGMT 135A. Introduction to Military 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 effective supervisor. Specific problems peculiar to the military supervisor are surveyed.

MGMT 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 "ways" and "wherefores" of the behavior of industrial man.

MGMT 136A. 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 "ways" and "wherefores" of the behavior of the military man.

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

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

MGMT 137A. Safety (OSHA) (3-0) Credit: 3

A study of safety as it related to the military, industrial and business communities. Special emphasis will be given the requirements of the Occupational Health and Safety Act as it affects management and employees.

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

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

MGMT 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.

MGMT 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 tolls and procedures.

MGMT 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 the relationship to freedom and democracy.

MGMT 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.

MGMT 232A. Law and Legal Assistance. (3-0) Credit: 3

Nature and scope of the law, court systems, law of contracts, principal and agent as relates to the military. Explanation of bailments, carriers, mortgages, securities, negotiable instruments, banks and banking, wills and estates. The procedures of obtaining and acquiring legal assistance for both military and civilian cases in or out of the continental limits of the United States of America are addressed. Emphasis is given on the knowledge required by the supervisor to counsel his subordinates in the areas of law and legal assistance.

MGMT 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, commercial banks, life insurance companies and mortgage bankers.

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

Labor relations aspects of personnel management are 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.

MGMT 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 corporation; Texas community property laws.

MGMT 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 estate, sales, bankruptcy.

MGMT 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.

MGMT 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.

MGMT 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.

MGMT 239A. Personnel Counseling. (3-0) Credit: 2

Systematic study of major theories of personnel counseling with supervised experience in role-playing utilizing these approaches.

**MGMT 239B. Military and Statistical Accounting.
(3-0) Credit: 3**

To train the student to complete statistical surveys of the military community at the company and battalion level, and to place these studies in proper report format. The student will also learn the fundamental principles of military report systems to include morning reports.

Mathematics

First Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Mathematics 132	3	Mathematics 134	3
Mathematics 133	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
Psychology 111	1	Physical Education	1
Physical Education	1		—
	—		17
	18		

Second Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Mathematics 231	3	Mathematics 232	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 is recommended for students pursuing either an Associate in Arts degree or an Associate in Science degree from Central Texas College. Freshmen with adequate background may enroll in Math 231 (Calculus) during the Fall semester with the permission of the Chairman of the Mathematics Department.

Course Descriptions for Mathematics

MATH 130. Fundamental of Mathematics. {3-0} Credit: 3

Designed for students desiring a review of fundamental algebraic operations. This course may not be used as a part of the requirements for a major in mathematics. Topics considered include operations with signed numbers, exponents, operations with polynomials, factoring, operations on rational expressions, solving linear equations.

MATH 131. Intermediate Algebra. (3-0) Credit: 3

Includes a brief review of fundamental algebraic operations, linear equations, systems of linear equations, determinants, quadratic functions, inequalities, exponential functions, logarithmic functions. Prerequisite: Math 130 or equivalent.

MATH 132. College Algebra. (3-0) Credit: 3

Includes consideration of quadratic functions, systems of quadratic equations, quadratic inequalities, matrices, binominal theorem, exponential functions, sequences, progressions, series, and applications. Prerequisite: Math 131 or equivalent.

MATH 133. Trigonometry. (3-0) Credit: 3

Wrapping function, circular functions, trigonometric functions, use of tables, identities, applications, to right triangles and oblique triangles, inverse functions, trigonometric equations, logarithms. Prerequisite: Math 131 or equivalent.

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

An algebraic treatment of straight lines, circles, parabolas, hyperbolas, ellipses. Transformation of coordinates, curve sketching, polar coordinates. Prerequisite: Math 133 or equivalent.

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

Symbolic logic, set theory, induction, permutations, combinations, counting methods, probability. Prerequisite: Math 131 or equivalent.

MATH 136. Finite Mathematics. (3-0) Credit: 3

A continuation of Math 135. Introduction to statistics, graphing, vectors, matrices, linear programming, and theory of games. Prerequisite: Math 135.

MATH 137. Business Mathematics. (3-0) Credit: 3

Introduction to the arithmetic processes in business, including interest, mortgage, taxes, insurance, payroll, inventory deductions, discounts, depreciation, annuities.

MATH 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, applications.

MATH 139. Modern Math. (3-0) Credit: 3

An introduction to topics taught in the modern elementary curriculum—modern algebra, geometry, sets, number systems, relations, functions, equivalence, congruence.

MATH 231. Differential Calculus. (3-0) Credit: 3 (Fall)

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

MATH 232. Integral Calculus. (3-0) Credit: 3 (Spring)

A first course in Integral Calculus. Prerequisite: Math 231 or equivalent.

MATH 233. Advanced Calculus. (3-0) Credit: 3

A further study of limits, functions, sequences, series, elementary differential equation, partial derivatives, multiple integrals, surface integrals. Prerequisite: Math 232 or equivalent.

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

Fourier series, linear differential equations, Laplace transforms, and series solution, all with applications. Prerequisite: Math 233.

Music

First Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 131	3	English 132	3
History 131	3	History 132	3
Music 131*	3	Music 132	3
Applied Music**	1-2	Applied Music**	1-2
Choir	1	Choir	1
Music 130	3	Music 133	3
Psychology 111	1	Physical Education	1
Physical Education	1		—
	—		15-16
	16-17		

Second Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231	3	English 232	3
Government 231	3	Government 232	3
Music 134	3	Applied Music**	2-3
Applied Music**	2-3	Music 242	4
Music 241	4	Choir	1
Choir	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, or voice.

Course Descriptions for Music

MU 111C. 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.

MU 130. Music Appreciation. (3-0) Credit: 3

This course is designed for the music student as well as for the general college student. It emphasizes intelligent, directed listening to music with attention focused on the materials, the forms, and the periods and styles of music. Course work will also cover the relation of music to other areas of cultural development.

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

An introduction to the elements of music through the audio-visual relative solmization method. Pentatonic, modal and diatonic scales; intervals, harmonic progressions of the principal chords. Ear training, sight singing, melodic and rhythmic dictation in simple and compound meters. Keyboard: cadences, canons.

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

A continuation of Music 131. Harmonic progressions with inverted triads, the dominant seventh chord in root position and inversions, secondary seventh chords, sequences. Ear training, sight singing, rhythmic-melodic-harmonic dictation. Relative solmization method employed throughout. Keyboard: cadences, sequences, canons.

MU 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 century through the 19th century. Principal forms, periods, and composers and the literature of each of the historical periods.

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

A continuation of Music 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.

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

Figured bass exercises employing dominant and secondary seventh chords, secondary dominants, diminished seventh chords, nonharmonic tones and altered chords. Melody harmonizations, modulations with pivot chords, harmonic analysis, harmonic dictation. Keyboard: sequences with seventh chords.

MU 242. Advanced Theory. (3-2) Credit: 4

A continuation of Music 241. Figured bass exercises employing altered chords; modulation to closely related keys; chromatic, enharmonic, diminished dominant seventh chord modulation. Melody harmonizations, analysis of larger works, harmonic dictation. Keyboard modulations.

Applied Music

MU 111P. Class Piano. Credit: 1

The class piano for beginners is coordinated with Music Fundamentals, therefore all beginning piano students are requested to attend Music 131 also. The course consists of introduction to the keyboard, major and minor scales and cadences up to 4 sharps and flats. The study of Bartok: Mikrokosmos I; easy selections from the classic, romantic and contemporary piano literature; Bach; Little Dances and Kodaly; Canons on the Black Keys. One hour class lesson per week. One hour daily practice required.

MU 112P. Class Piano. Credit: 1

A continuation of Piano 111; keyboard skills in all scales, arpeggios and cadences. Study and performance of selections from the classic, romantic and contemporary piano literature, Bach and Sonatina. One hour class lesson per week. One hour daily practice required.

MU 121P. Piano. Credit: 2

Students will be held responsible for all skills outlined in Piano 111 and 112. Study of Czerny "School of Velocity I", Bach's "Short Preludes and Fugues", a classic Sonatina or Sonata, selected pieces from the romantic and contemporary piano literature. All major and minor scales in octaves, 3rds and 6ths; major, minor, dominant and diminished 7th arpeggios. One 45 minute private lesson per week. Two hours daily practice required.

MU 122P. Piano. Credit: 2

A continuation of Piano 121. Bach's "Short Preludes and Fugues; or "Two-Part Inventions", Czerny Etudes, a classic Sonatina or Sonata and selected pieces from the romantic and contemporary piano literature. All major and minor scales in Octaves, 3rd and 6ths; major, minor, dominant and diminished 7th chords and arpeggios. One 45 minute private lesson per week. Two hours daily practice required.

MU 221P. Piano. Credit: 2

This course includes the study of the Bach "Two and Three-part Invention" and selections from the "French Suites"; a Sonata by Haydn, Mozart or Beethoven; romantic and contemporary piano compositions. All major and minor scales 4 octaves; major, minor, dominant and diminished 7th arpeggios 4 octaves. One 45 minute private lesson per week. Two hours daily practice required.

MU 222P. Piano. Credit: 2

A study of the Bach "Two and Three-part Inventions". Suites or Partitas; a Sonata by Haydn, Mozart or Beethoven; one movement of a standard Concerto; romantic and modern compositions. All major and minor scales 4 octaves; major, minor, dominant and diminished 7th arpeggios 4 octaves. One 45 minute private lesson per week. Two hours daily practice required.

MU 231P. Advanced Piano. Credit: 3

This course includes the study of the "Well Tempered Clavier", Preludes and Fugues by Bach. Clementi's "Gradus and Parnassum", Chopin's "Etudes and Preludes", a Sonata by Haydn, Mozart or Beethoven, romantic

and modern compositions and one movement of a standard concerto, all major and minor scales 4 octaves; major, minor, dominant and diminished 7th arpeggios 4 octaves. One hour private lesson per week. Three hours daily practice required.

MU 232P. Advanced Piano. Credit: 3

A continuation of Piano 231: Study of the "Well Tempered Clavier", Preludes and Fugues by Bach; a Sonata by Mozart or Beethoven; one complete Concerto; Chopin's "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 private lesson per week. Three hours daily practice required.

Voice

MU 111V. Class Voice. Credit: 1

This course is designed for the beginning voice student. It consists of the fundamentals of voice culture: the principles of breathing and tone production, posture, diction, major and minor scales, vocalises, standard songs in English. One hour class lesson per week.

MU 112V. Class Voice. Credit: 1

A continuation of Voice 111. Exercises extended to arpeggios; vocalises, solo and ensemble works from the classic and romantic sacred and secular literature. One hour class lesson per week.

MU 221V. Voice. Credit: 2

Student will be held responsible for all skills outlined in Voice 111 and 112. Exercises of medium difficulty; songs from early Italian repertoire, German Lieder, standard English songs; easier oratorio and operatic arias. One 45 minute private lesson per week.

MU 222V. Voice. Credit: 2

A continuation of Voice 221. More difficult songs from the classic and romantic repertoire; oratorio and operatic arias; modern French songs; 20th century American songs. One 45 minute private lesson per week.

Associate Degree Nursing

A two-year Associate in Applied Science Degree program

The Associate Degree Nursing program provides a general education together with nursing education on a college level. The student receives classroom instruction and coordinated clinical experience in the nursing care of patients in area health agencies under supervision and guidance of the college faculty. Upon completion of the two year program, the student receives the Associate in Applied Science Degree in Nursing from Central Texas College and is eligible to write the licensing examination to become a Registered Nurse. The license is transferrable to any state or territory of the United States. The Associate Degree Nursing program is approved by the Board of Nurse Examiners for the State of Texas.

Admission Requirements: Applicants for the program must follow the regular procedures for admission to Central Texas College. In addition, the following is required for admission to the Associate Degree Nursing program: 1. Application for the Nursing program. 2. Physical examination report evidencing good health and signed by a licensed physician. 3. Three references. 4. A composite score of at least 15 on the ACT test. 5. A personal interview with a member of the Nursing faculty.

In order to maintain acceptable standing and continued progress, the student must earn a grade of "C" or higher in each course in nursing, basic science and social science required in the Nursing curriculum. An average grade of "C" for all related courses is also required for continued progress and graduation.

Summer Session I

First Semester Subject	Hours
Biology 145	4
Psychology 231.....	3
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	7

First Year

First Semester Subject	Hours	Second Semester Subject	Hours
Nursing 161	6	Nursing 192	9
Biology 146	4	Biology 144	4
English 131	3	Psychology 232.....	3
Psychology 111.....	1		<hr/>
Psychology 233.....	3		16
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	17		

Summer Session II

First Semester Subject	Hours
Nursing 264	6

Second Year

First Semester Subject	Hours	Second Semester Subject	Hours
Nursing 291	9	Nursing 233	3
English 132	3	Nursing 292	9
Sociology 231	3	*Social Science Elective	3
	<hr/>		<hr/>
	15		15

*Social Science Elective must be approved by Associate Degree Nursing Department Manager.

Course Descriptions for Associate Degree Nursing

NU 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.

NU 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. Prerequisites: NU 161, BIOL 145, and BIOL 146.

NU 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. Prerequisites: NU 161, NU 192, NU 291; Upper division standing.

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

Classroom and guided clinical experiences centering on prevention and treatment of psychiatric conditions, 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: NU 192.

NU 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: NU 192.

NU 292. Medical-Surgical Nursing II. (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. Experience is gained in team nursing which will enable the student 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.

Vocational Nursing

The Vocational Nursing program includes twelve months of theory and clinical practice. Upon satisfactory completion of the program, the student is awarded a Certificate of Graduation and is eligible to write the State Board Examination for Licensed Vocational Nurses.

Students seeking admission to the program must meet all the College entrance requirements and minimum standards as set by the State Board of Vocational Nurse Examiners. Credits earned may be applied toward an Associate in Applied Science Degree in Nursing.

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 for the Vocational Nursing program: The applicant must: 1. Be at least 17 years of age and exhibit a sincere desire to be a helping person. 2. Be a U.S. citizen or have filed a declaration of intent. 3. Submit a transcript indicating graduation from an accredited high school, or have a General Education Development Test equivalency diploma. 4. Present proof of good mental and physical health as evidenced by a written report of examination by a licensed physician not more than six months prior to admission date. Report must include: Tuberculin skin test or chest x-ray, complete blood count, serology, urinalysis and dates of all immunizations required by the State of Texas. 5. Have a personal interview with the program director. 6. Submit a completed application form with two recent photographs (passport type, black and white only) 2½" X 3". Three references must also be listed on the application.

In order to maintain acceptable standing in the Vocational 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 Vocational Nursing Candidates. A grade of "C" or better must be made in each nursing course as a prerequisite to enrolling in the next nursing course.

First Semester

<i>Subject</i>	<i>Hours</i>
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Vocational Nursing 161.....	6
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Biology 145	4
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Psychology 233.....	3
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13

Third Semester

<i>Subject</i>	<i>Hours</i>
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Vocational Nursing 192.....	9
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9

Second Semester

<i>Subject</i>	<i>Hours</i>
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Vocational Nursing 191.....	9
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9

Course Descriptions for Vocational Nursing**VN 161. Nursing I. (8-16.3) Credit: 6 (16 week term)**

This course is designed to introduce the student to the role of the vocational nurse on the nursing team and on the health team. Included will be a unit on personal and vocational relationships; disease prevention and control, calculation of solutions and dosage, normal nutrition for all age groups and basic skills necessary to identify patients total needs, give physical care and communicate effectively.

VN 191. Nursing II. (6-29.3) Credit: 9 (12 week term)

The organization of this course is around the family as a community unit with child bearing and child rearing as a main focus. Mental health concepts, pharmacology and nutrition are integrated throughout the course. In the nursing care of ill children the relationship between developmental stage and pathological condition is emphasized. Clinical practice is a continuation of the basic nursing skills and the skills peculiar to the child bearing process.

VN 192. Nursing III. (7-28.6) Credit: 9

This course forms the basis for the care of persons of all ages with general medical and surgical problems. Special attention will be placed on the problems of the aged. Diet therapy, pharmacology, mental health concepts, and pathophysiology will be integrated to provide the basis for total patient care, including health teaching and rehabilitation. Nursing practice will include patients of all ages with a wide range of medical and surgical conditions. This course will also include the more complex nursing problems and the nursing approach in psychopathology. Also included will be a seminar on current nursing trends, application for licensure and transition from student to graduate and employee.

Office Administration

General Secretarial Curriculum

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Office Administration 135	3	Office Administration 136	3
Office Administration 131* ...	3	Office Administration 132* ...	3
Office Administration 133* ...	3	Office Administration 134* ...	3
Mathematics 137	3	Office Administration 139	3
English 137	3	Office Administration 138	3
Psychology 111.....	1	Physical Education	1
Physical Education	1		—
	—		16
	17		

Certificate of Completion awarded upon completion.

*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 chosen leading toward general, medical, or legal secretarial programs upon departmental approval.

Administrative Secretarial Curriculum

First Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Office Administration 135	3	Office Administration 136	3
Office Administration 131* ...	3	Office Administration 132* ...	3
Office Administration 133* ...	3	Office Administration 134* ...	3
English 137	3	Mathematics 137	3
Office Administration 139	3	Office Administration 138	3
Psychology 111.....	1	Physical Education	1
Physical Education	1		—
	—		16
	17		

Second Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Office Administration 234	3	Office Administration 235	3
Office Administration 231* ...	3	Office Administration 233* ...	3
Office Administration 232* ...	3	Office Administration 237	3
Business 231	3	Computer Science 130	3
Computer Science 131	3	Elective*	3
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	15		15

*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 chosen leading toward general, medical, or legal secretarial programs upon departmental approval.

Office Assistant

First Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Office Administration 234	3	Office Administration 235	3
Office Administration 133* ...	3	Office Administration 134* ...	3
Office Administration 135	3	Management 135	3
Mathematics 137	3	Office Administration 139	3
English 137	3	Office Administration 138	3
Psychology 111.....	1	Physical Education	1
Physical Education	1	—	
—			16
	17		

Certificate of Completion awarded upon completion.

*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 chosen leading toward general, medical, or legal secretarial programs upon departmental approval.

Office Management

First Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Office Administration 234	3	Office Administration 235	3
Office Administration 133* ...	3	Office Administration 134* ...	3
Office Administration 135	3	Management 135	3
Mathematics 137	3	Office Administration 138	3
English 137	3	Office Administration 139	3
Psychology 111.....	1	Physical Education	1
Physical Education	1		—
	—		16
	17		

Second Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Management 134	3	Office Administration 237	3
Management 136	3	Management 236	3
Management 235	3	Management 232	3
Speech 233.....	3	Management 239	3
Computer Science 130	3	Approved Elective.....	3
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	15		15

Associate in Applied Science Degree awarded upon completion.

*Beginning or advanced levels of 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 typing to fulfill hour requirements. Courses may be chosen from courses appropriate for the student's major and with approval of the department chairman.

Course Descriptions for Office Administration

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

Introduction to Gregg shorthand. Reading, writing, theory principles, brief forms.

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

Continuation of OA 131.

OA 133. Beginning Typewriting. (3-3) Credit: 3

A beginning course in touch typewriting for the mastery of machine parts and the keyboard. Special emphasis of speed development, including an introduction to letter writing, tabulating, and preparing manuscripts.

OA 134. Intermediate Typewriting. (3-3) Credit: 3

A continuation of OA 133. Additional skill in terms of accuracy and speed will be evidenced by students. Composition and typing of business letters, tabulation, and manuscripts of more demanding content will be instructed.

OA 135. Clerical Practice. (2-1) 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. Training in proficiency in handling the mail, telephone techniques, and handling receptionist duties. Considerable emphasis and training in integrating these activities into an office environment will be instructed.

OA 136. Secretarial Practice. (3-1) Credit: 3

This course is designed for the student who wishes to prepare for a career as an executive secretary. More advanced mailable letters, typing from transcribing machines, organization of meetings and conferences, travel arrangements, information sources, and human relations skills are studied. Students are trained in word processing procedures. Students are introduced to various "needs" theories such as Abraham Maslow's hierarchy of needs. Students are guided into the solution of office problems due to personality problems. Group work, group dynamics and student evaluations are utilized extensively in this course.

OA 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.

OA 139. Business Machines and Calculations. (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.

OA 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.

OA 232. Advanced Typewriting. (3-3) Credit: 3

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

OA 233. Advanced Transcription. (3-3) Credit: 3

A continuation of skill building in Gregg shorthand with concentration on transcribing into mailable copy from office-style dictation. Special emphasis will be given to the inter-relatedness of specialized office activities and terminologies as they relate to an administrative secretarial position. Prerequisite: OA 231.

OA 234. Bookkeeping. (3-3) Credit: 3

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

OA 235. Bookkeeping. (3-3) Credit: 3

Analysis and recording of business transactions; use of journal and ledgers; trial balance and work sheets; 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.

OA 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, knowledge, 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.

OA 238. Office Occupations Internship. (1-5) Credit: 3

The student will be provided a combination of occupationally related classroom instruction and on-the-job training in cooperation with offices within the Office Administration Department, and other campus offices. Actual work training will be available in the following areas: Typewriting, filing, duplication, use of telephone, preparation or correspondence, voice transcription machines, record-keeping, proof-reading, etc.

OA 239. Office Administration Internship. (1-5) Credit: 3

Students will be provided a combination of occupational related classwork instruction and on-the-job training in cooperation with Office Administration offices and other campus offices. Students will be provided with work experiences in the following areas: Taking dictation, typewriting, letter composing, telephone procedures, filing, work scheduling, financial calculating, duplicating, transcribing from dictation equipment, etc.

Offset Printing

A one-year Certificate program

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Offset Printing 131	3	Offset Printing 135	3
Offset Printing 132	3	Offset Printing 136	3
Offset Printing 133	3	Offset Printing 137	3
Offset Printing 134	3	Offset Printing 138	3
Office Administration 133	3	Office Administration 139	3
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15		15	

Course Descriptions for Offset Printing

OP 131. Introduction to Offset Printing. (2-4) Credit: 3

This course offers the student an introduction to offset printing with a general survey of various printing processes and their uses in industry. The history of printing, the techniques involved in the production and distribution of printing materials, the kinds of printing industries and printing terminology are included. It provides an introduction to all equipment and how each piece of equipment relates to the total plant operation.

OP 132. Camera and Darkroom Procedures, Stripping and Platemaking I. (2-4) Credit: 3

Basic camera operations and darkroom procedures including percentage size calculations, simple line shots and film processing by the tray method. Basic techniques in the precise layout of simple line negatives, halftones, and combinations. Selection of proper plates for specific jobs and the exposing and developing of plates.

OP 133. Offset Press Operation I. (2-4) Credit: 3

Basic theory and techniques in the operation of the small (duplicator) offset press, including the "offset principle", feeding of all types of stock, image position, sheet delivery and the maintaining of correct image density.

OP 134. Bindery Operations. (2-4) Credit: 3

Theory and operation of the paper cutter, paper drill, stitcher, collator and folder, and basic binding techniques. The course includes actual print shop production type activities utilizing this equipment. The course also contains a study of the basic characteristics of paper and ink and the processes involved in the manufacture.

OP 135. Copy Preparation, Cost Estimating and Pricing. (2-4) Credit: 3

A study of the basic types of copy layout techniques, and composing equipment, including the operation of the IBM Selectric Composer and the strip printer. Procedures for estimating the expenses of, and determining the amount of customer charges.

OP 136. Camera and Darkroom Procedures, Stripping and Platemaking II. (2-4) Credit: 3

Advanced theory and techniques of line copy reproduction, halftone reproduction, including duotone color and multi-color stripping and plate processing of line copy.

OP 137. Offset Press Operation II. (2-4) Credit: 3

Advanced offset press operation including printing of large solids, duotone and multi-color line copy. Students will train on more advanced equipment and improve the skills acquired in previous offset press operation course.

OP 138. Offset Printing Equipment Maintenance.**(2-4) Credit: 3**

A thorough study of the adjustments, preventative maintenance and simple repair of darkroom, composing room, press room and bindery equipment.

Photography

A one-year Certificate program

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Photography 141	4	Photography 144	4
Photography 142	4	Photography 241	4
Photography 143	4	Photography 242	4
Business 131	3	Photography 243	4
*Business Elective	3	*Business Elective	3
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	18		19

*Business Electives must be approved by the Department Manager for Photography.

Course Descriptions for Photography

PHOT 141. Introductory and Publication 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 photography, and story-telling photographs; printing and composing photographs for publications are included.

PHOT 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.

PHOT 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.

PHOT 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.

PHOT 241. Television Cinematography. (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 camers.

PHOT 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.

PHOT 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.

Health, Physical Education and Recreation

Physical Education

First 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
Speech 131	3	Math (Approved)	3
Health 132	3	Physical Education 131	3
Physical Education	1	Physical Education	1
Psychology 111	1	Physical Education	1
<hr/>		<hr/>	
18		18	

Second 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	Health 235	3
Biology 143	4	Elective	3
Physical Education	1	Physical Education	1
Physical Education	1	Physical Education	1
	18		17

*Students majoring in Physical Education may not repeat activity courses for credit.

Recreation

First 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
Speech 131.....	3	Recreation 134	3
Recreation 133	3	Physical Education 131	3
Physical Education	1	Physical Education	1
Psychology 111.....	1	Physical Education	1
	18		18

Second Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 231	3	English 232	3
Government 231.....	3	Government 232.....	3
Art 239C.....	3	Sociology 231	3
Psychology 231.....	3	Physical Education 231	3
Health 235	3	Physical Education	1
Physical Education	1	Approved Recreation Activity.....	3
Physical Education	1	Physical Education	1
	17		17

Recreation Leadership

The two-year curriculum in the Recreation Leadership Program is designed to prepare the student for work in the field of recreation in the community, hospitals, industry, armed forces, and in private, public or church camps. Upon completion of this course, a certificate will be awarded.

First Year

<i>First Semester Subject</i>	<i>Hours</i>	<i>Second Semester Subject</i>	<i>Hours</i>
Approved English	3	Approved English	3
Mathematics 133	3	Speech 131	3
Recreation 133	3	Recreation 134	3
Physical Education 131	3	Recreation 135	3
Physical Education 111	1	Physical Education 110	1
Physical Education 117	1	Physical Education 112	1
Psychology 111	1	Physical Education 115	1
	—		—
	15		15

Second Year

<i>First Semester Subject</i>	<i>Hours</i>	<i>Second Semester Subject</i>	<i>Hours</i>
Psychology 231	3	Sociology 231	3
Art 239C	3	Art 239D	3
Recreation 233	3	Health 235	3
Recreation 237	3	Recreation 239	3
Physical Education 231	3	Recreation 238	3
Physical Education 214	1	Physical Education 215 or 218	1
	—		—
	16		16

*Physical Education one-hour activity courses may be taken in any sequence, but may not be repeated.

Course Descriptions for Physical Education

<i>Course Number</i>	<i>Title of Course</i>
PE 110	Football and Basketball
PE 111	Volleyball and Softball
PE 112	Beginning Badminton
PE 113	Beginning Bowling
PE 114	Equitation
PE 115	Folk and Square 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	Intermediate Tennis
PE 213	Advanced Golf
PE 214	Tumbling
PE 215	Figure Development
PE 216	Advanced Badminton
PE 218	Physical Conditioning
PE 218A	Health and First Aid
PE 218B	Defensive Tactics
PE 218C	Firearms
PE 219	Varsity Athletics

PE 131. Foundations of Physical Education. (3-0) Credit: 3

A course which introduces the student to the fields of health, physical education, and recreation. Emphasis on the scope and organization of professional activities, opportunities and qualifications of the professional physical educator.

PE 231. Sports Officiating. (3-0) Credit: 3

Theory and practice in techniques of officiating. Officiating experience.

Course Descriptions for Health, Safety and First Aid

HEALTH 132. Foundations of Health. (3-0) Credit: 3

A fundamental course in principles and problems of healthful living. Emphasis on current information and thought to be applied to individual daily lives.

HEALTH 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.

Course Descriptions for Recreation

REC 133. Foundations of Recreations. (3-0) Credit: 3

Development, structure, purposes and functions of the professional fields in recreation.

REC 134. Principles of Recreational Leadership.

(3-0) Credit: 3

Development of skills and leadership ability in various program areas of recreation. Observation of programs sponsored by city recreation, boys clubs and armed forces.

REC 135. Theory and Practice of Teaching Sports.

(3-0) Credit: 3

Designed to teach the student evaluation procedures, rules and improvement of skills. Emphasis is on methods and materials.

REC 233. Camp Counseling. (3-0) Credit: 3

Understanding the child in camp setting, techniques of cabin counseling, general aspects of programming, campcraft, nature study, and social and physical recreation appropriate to camp programs.

REC 235. Program Planning for Recreation. (3-0) Credit: 3

Designed to teach the student procedures, techniques and methods in planning, developing, and implementation of a recreation program.

REC 237. Theory and Practice of Teaching Aquatics.

(3-0) Credit: 3

Basic skills, professions and safety techniques in swimming and water safety. Emphasis on methods and materials.

REC 238. Outdoor Recreational Sport. (3-0) Credit: 3

A course designed to equip the student with the knowledge, skills, and appreciation of the outdoor recreational sports, games and activities needed to organize and administer a varied program of recreation.

REC 239. Field Work in Recreation. (3-0) Credit: 3

Working in an assigned recreation program under supervision. Course includes observations, participation and supervised leadership.

Restaurant Management

A two-year Associate in Applied Science Degree program

First Year

First Semester Subject	Hours	Second Semester Subject	Hours
Restaurant Management 131 .. 3		Restaurant Management 134 .. 3	
Restaurant Management 132 .. 3		Restaurant Management 135 .. 3	
Restaurant Management 133 .. 3		Restaurant Management 136 .. 3	
English 137	3	Office Administration 138 3	
History 131	3	History 132	3
Psychology 111.....	1		—
	—		15
	16		

Second Year

First Semester Subject	Hours	Second Semester Subject	Hours
Restaurant Management 232 .. 3		Restaurant Management 235 .. 3	
Business 131	3	Management 239	3
Business 231	3	Office Administration 234 3	
Government 231.....	3	Business 232	3
Mathematics 137	3	Government 232.....	3
	—		—
	15		15

Course Descriptions for Restaurant Management

RMGT 131. Food Preparation and Serving. (3-3) Credit: 3

An introduction to techniques of food preparation. Includes preparation of vegetables, pastries, oven dishes, soups, salads, meats, fish, and poultry. Techniques include experimental cookery, Food marketing and preservation, serving and table service.

RMGT 132. Nutrition. (3-1) Credit: 3

A study of dietary needs; the role of the proteins, fats, carbohydrates, minerals, and vitamins; factors to be considered in proper selection and preparation of foods for maximum nutritional value.

RMGT 133. Sanitation and Safety. (2-3) Credit: 3

Personal cleanliness; sanitary practices in food preparation; causes, investigation and control of illnesses 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.

RMGT 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.

RMGT 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.

RMGT 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.

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

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

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

Supervised work experience and practical application of management techniques.

Science

Biology

First 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		—
	—		18
	19		

Summer Session

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Chemistry 241.....	4	Chemistry 242.....	4

Second Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Biology 241	4	Biology 242	4
Geology 141	4	Geology 142	4
Government 231	3	Government 232	3
English 231	3	English 232	3
Physical Education	1	Physical Education	1
	—		—
	15		15

Chemistry

First Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Chemistry 141	4	Chemistry 142	4
Mathematics 231**	3	Mathematics 232	3
History 131	3	History 132	3
Mathematics 134**	3	Psychology 231	3
English 131	3	English 132	3
Physical Education	1	Physical Education	1
Psychology 111	1		—
	—		17
	18		

Summer Session

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Chemistry 241	4	Chemistry 242	4

Second Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Chemistry 143	4	Elective*	4
Government 231	3	Government 232	3
English 231	3	English 232	3
Physics 241	4	Physics 242	4
Physical Education	1	Physical Education	1
	—		—
	15		15

*Check senior institution 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.

Geology

First Year

<i>First Semester</i> <i>Subject</i>	<i>Hours</i>	<i>Second Semester</i> <i>Subject</i>	<i>Hours</i>
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		—
	—		18
	19		

Second Year

<i>First Semester</i> <i>Subject</i>	<i>Hours</i>	<i>Second Semester</i> <i>Subject</i>	<i>Hours</i>
Mathematics 231	3	Mathematics 232	3
Biology 241	4	Biology 242	4
Government 231.....	3	Government 232.....	3
Mathematics 134	3	Psychology 231.....	3
English 231	3	English 232	3
Physical Education	1	Physical Education	1
	—		—
	17		17

Course Descriptions for Biology

BIOL 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.

BIOL 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. Audiotutorial method of instruction.

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

Fundamental principles of microbiology; includes study of morphology physiology, and classification of microbes and their relations to soil, food, water, disease, and immunology. Designed for nursing and pre-med students.

BIOL 145. Human Anatomy. (3-3) Credit: 4

Basic human anatomy designed for nursing and pre-med students. Laboratory includes anatomical models and displays, audio-visual materials, experiments, and taped instructional materials.

BIOL 146. Human Physiology. (3-3) Credit: 4

Fundamental study of the chemical interrelationships of human systems. Digestion, respiration, excretion, muscular activities, reproduction, and metabolism are included. Basic physiological instruments and techniques are included in the lab.

BIOL 231. Field Biology. (2-3) Credit: 3

A course designed to introduce the student to the concepts and techniques of field ecology and field problems as applied to living communities. The laboratory will include instrumentation, measurements, and analysis of populations.

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

Classification, anatomy, physiology, and ecology of the invertebrates. Dissection and identification of structures are included in the laboratory. Field trips for the collection of invertebrates are required at minimal student expense. Prerequisite: Biology 141 or 142 or consent of the instructor.

BIOL 242. Vertebrate Zoology. (3-3) Credit: 4

Structure, development, physiology, and natural history of the vertebrate animals; emphasis will be placed on North American forms; field trips are required at minimal student expense. Prerequisite: Biology 141, 142 or consent of the instructor.

Course Descriptions for Chemistry

CHEM 140. Introduction to General Chemistry. (3-2) Credit: 4

The course covers the fundamentals of general and descriptive chemistry with applications from modern living, medicine, agriculture, etc. This course is designed for the non-science major, the agriculture major, the home economics major, the nursing major, and any student needing a laboratory science credit.

CHEM 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 cation and anions and an introduction to quantitative analysis is studied in the second semester laboratory. The course is designed for science majors and minors. The course includes three hours lecture, one hour recitation, and three hours of laboratory per week. Prerequisite: Two years of high school algebra and Math 132, or consent of the instructor.

CHEM 143. Quantitative Analysis. (3-4) Credit: 4

This is a study of the theory and practice of gravimetric and volumetric analysis. The study of errors is introduced. Simple instrumental methods of analysis are introduced. The course is intended for science majors and minors, and medical technology majors. The course includes two hours of lecture, one hour of recitation, and four hours of laboratory per week. Prerequisite: Chemistry 142 or consent of the instructor.

CHEM 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 and mass spectra of organic compounds are studied. The course is designed for science majors and minors. Prerequisite: Chemistry 141, 142, or consent of the instructor.

Course Descriptions for Physics**PHY 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.

PHY 141. College Physics. (3-3) Credit: 4

Fundamentals of classical mechanics, heat, and sound are discussed. This course is primarily for students who plan to major in medicine, dentistry, veterinary medicine, pharmacy, and for all other students needing a two semester course in physics. The course includes three hours of lecture, one hour of recitation, and two hours of laboratory per week. Prerequisite: Math 133 or registration therein.

PHY 142. College Physics. (3-3) Credit: 4

A continuation of Physics 141, fundamental of classical electricity, magnetism, light, wave-motion, atomic and nuclear physics are covered. Prerequisite: Physics 141, or consent of the instructor.

PHY 241. Modern Physics. (3-3) Credit: 4

Mechanics and heat for science majors and minors, and engineering majors. Vector algebra and calculus are used. The course includes three hours of lecture, one hour of recitation, and two hours of laboratory per week. Prerequisite: Math 231 or registration therein.

PHY 242. Modern Physics. (3-3) Credit: 4

Electricity, magnetism, wave-motion and light, an introduction to modern physics for science majors and minors, and engineering majors. Vector algebra and calculus are used. The course includes three hours of lecture, one hour of recitation, and two hours of laboratory per week. Prerequisite: Physics 241 or equivalent.

Course Descriptions for Geology

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

An introductory course in the nature and properties of the materials which make up the earth. Topics included are processes of glaciation, volcanism, weathering and erosion. Modern theories such as plate tectonic are also studied. Field work including the study of local rocks and minerals, is an integral part of the course.

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

The course involves a study of the record of life forms that developed throughout geological time. It also covers the development of the earth from its cosmic beginning to current land forms. Principles of stratigraphy, paleontology, geologic time, plate tectonics, and hypotheses of earth origin are studied in the course. Field work, including the study of local fossil fauna, is an integral part of the course.

Course Descriptions for Space Science

ASTRON 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 are studied. Planetarium and observatory used in laboratory work.

ASTRON 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 are included. Planetarium and observatory used in laboratory work.

Social Science

First Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
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		—
	—		18
	19		

Second Year

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
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 for Social Science

Anthropology

ANTH 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.

ANTH 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

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

The basic physical elements of geography: Maps, climate, and natural resources.

GEO 232. Cultural and Regional Geography. (3-0) Credit: 3

A survey of the climate regions of Earth and the manner in which man adapts to his particular environment. A comparison of the various cultures ranging from hunting and gathering societies to the modern industrial world.

Government

GOVT 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

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

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

HIST 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.

HIST 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 19th century, the causes and consequences of the two World Wars and the rise of dictatorship.

HIST 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 of world power; critical later years.

HIST 231. International Relations and U.S. Foreign Policy. (3-0) Credit: 3

A study of international relationships and problems in world affairs; organization and processes used to arrive at foreign policy decisions of the United States; the elements of international communist ideologies; and the evolution of American Foreign Policy since 1945.

HIST 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.

HIST 236. World Religion. (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.

Philosophy

PHIL 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.

PHIL 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.

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

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

Psychology

PSYC 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.

PSYC 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.

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

A study of psychological concepts and principles related to healthy personality and social adjustment.

PSYC 233. Child Growth and Development. (3-0) 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 to the human organism as it develops physically, mentally, emotionally, and socially; problems of adjustment.

PSYC 234. Psychology of Adolescence. (3-0) Credit: 3

This course is designed to succeed Child Psychology. Physical, mental, emotional and social growth and development of the adolescent from puberty to maturity are studied.

Sociology

SOC 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.

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

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

SOC 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.

SOC 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.

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

The origin and development of personal behavior in interpersonal situations.

SOC 236. Marriage and the 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.

**SOC 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.

SOC 238. Juvenile Justice System. (3-0) Credit: 3

The juvenile justice system; history, philosophy and evaluation of the juvenile court, juvenile court practices and procedures; neglect, dependency and delinquency, jurisdiction of the court; the role of the police officer, the correctional officer and the social welfare worker in the juvenile justice system.

SOC 238A. Sociology of Delinquency. (3-0) Credit: 3

Social forces that promote juvenile lawlessness will receive major focus. Comparative characteristics of urban and rural delinquents will be studied, along with the impact that social institutions and community attitudes have on aggravating and mitigating delinquent behavior.

Juvenile Corrections

First Year

*First Semester**Subject**Hours*

English 131	3
History 131	3
Psychology 231.....	3
Sociology 231	3
Psychology 111.....	1
Physical Education	1

14

*Second Semester**Subject**Hours*

English 132	3
History 132	3
Psychology 232.....	3
Psychology 233.....	3
Sociology 232	3
Physical Education	1

16

Second Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
English 239	3	Sociology 238	3
Government 231	3	Government 232	3
Sociology 236	3	Sociology 233	3
Sociology 238A	3	Psychology 234	3
Elective	3	Elective	3
Physical Education	1	Physical Education	1
	16		16

Telecommunications

A two-year Associate in Applied Science Degree program

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Telecommunications 131	3	Telecommunications 133	3
Telecommunications 132	3	Telecommunications 134	3
Telecommunications 135	3	English 132	3
English 131	3	Journalism 142	4
Journalism 141	4	Speech 131	3
Psychology 111	1		16
	17		

Second Year

First Semester		Second Semester	
Subject	Hours	Subject	Hours
Telecommunications 231	3	Telecommunications 232	3
Telecommunications 233	3	Telecommunications 236	3
Telecommunications 234	3	Telecommunications 237	3
Telecommunications 235	3	Telecommunications 238	3
*Elective	3	*Elective	3
	15		15

*Electives must be selected with and approved by the Telecommunications Department Manager.

Prerequisites or their equivalents are required for non-broadcasting majors taking Telecommunications courses above the Freshman level.

Course Descriptions for Telecommunications

TELE 131. Introduction to Broadcasting. (3-3) Credit: 3

This is a survey course tracing the history of broadcasting from 1884 to the present. Besides history, the course will present information on comparative systems of broadcasting and on the basic operational procedures of radio and television stations. Preparation for the FCC Radio-Telephone Operator's Third Class Permit is included in this course of study.

TELE 132. Beginning Radio Production. (3-3) Credit: 3

In this course the fundamental techniques and practices of production and programming are emphasized with a great deal of practical experience in the KNCT-FM studios. Production of various types of programs including interviews, documentaries, and basic news will be studied. Each student will be trained to competently operate a radio control board, turntables, and tape recorders.

TELE 133. Beginning Television Production. (3-3) Credit: 3

This course is designed to give the student the fundamental skills of camera operation, microphone techniques, basic set design, basic graphics, and lighting. In addition, each student will produce and direct his own commercials. A basic study of the operations of a television station will be covered.

TELE 134. Station Sales/Management. (3-0) Credit: 3

This course is designed to give the student a working knowledge of the broadcast industry; how individual radio and television stations program, sell spots and time, set up management responsibilities, negotiate scheduling with network, and advertising. It also covers the legal and ethical aspects of broadcasting through a use of the FCC Rules and Regulations. Audience measurement and what it means will also be studied.

TELE 135. Radio-Television Announcing. (3-3) Credit: 3

This course covers the duties and responsibilities of the announcer, such as operation of the audio console, announcing commercial copy, announcing station breaks, newscasting, interviewing, etc. Special emphasis is given in the areas of voice and diction and pronunciation. Practical experience will be offered through the use of the KNCT-FM, KNCT-TV facilities.

TELE 231. Television Film I. (3-3) Credit: 3

This course is designed to introduce the student to the fundamentals of cinematography and its applications in the television industry. Basic filming techniques will be covered, and each student will learn to shoot 16mm motion picture cameras, edit, story board, and process film. Laboratory exercises will provide for the shooting of at least 200 feet of film per student.

TELE 232. Advanced Television Production. (3-3) Credit: 3

This course offers advanced training in television production. Included will be experience as cameraman, floor director, talent, lighting, director, technical director, producer, graphics, film director, video tape operator, and audio engineer. Practical experience in weekly television program production will be available through the use of station KNCT-TV. In addition, a critical look will be given to television programming techniques, types of station structure, and innovative technological breakthroughs.

TELE 233. Advanced Radio Production. (3-3) Credit: 3

The major emphasis in this course is advanced training in the production of radio commercials, promotion announcements, documentaries, newscasting, and interviewing. An in-depth study of the programming formulas and different types of radio broadcasting is presented. Each student will be responsible for weekly programming to be aired over radio station KNCT-FM.

TELE 234. Broadcast Operations. (3-3) Credit: 3

This course is designed to provide the student of broadcasting with specific areas of study in promotion, graphics, traffic, continuity, and programming for both radio and television. The laboratory for this course will be the study of and implementation of an assessment of audience needs survey.

TELE 235. Broadcast Writing. (3-3) Credit: 3

This course covers the stylistic writing techniques as needed for commercial copy, promotional copy, news editing, radio-television show formats, and individualistic creative writing for drama or documentaries. Practical experience will be available through stations KNCT-FM and KNCT-TV.

TELE 236. Communications Law. (3-0) Credit: 3

This course is an in-depth study of the Federal Communications Commissions Rules and Regulations, treaties, and laws pertaining to the overall operation of the broadcast station; a survey of copyright laws, libel and slander laws, contracts and other legal responsibilities associated with broadcasting.

TELE 237. Television Film II. (3-3) Credit: 3

Advanced Film production, color processing, and editing are covered. Much emphasis is given to news photography and on-the-job training. Students will be given weekly film assignments for the KNCT-TV daily newscasts.

TELE 238. Telecommunications Practicum. (1-6) Credit: 3

The purpose of this course is to give each student an opportunity to receive practical experience in a specialized area of study. A student may choose his individual study practicum from any of the following broadcast-related areas: Graphic arts, set design, photography, cinematography, broadcast journalism, radio production, television production, broadcast promotion, traffic and continuity.

TELE 239A. Technical Aspects of Broadcasting.
(3-0) Credit: 3

This course will offer invaluable practical experience to the student because he will be usually working under the pressure of time; each student will be participating in live newscasts over KNCT-FM and KNCT-TV. In-depth news reporting, editing methodology, and news writing, as well as technical production will be covered.

TELE 239B. Telecommunications Field Projects.
(1-5) Credit: 3

The field projects will constitute an on-the-job training experience for all the students. The laboratory portion will place the student in responsible production positions for on-air broadcast activities on KNCT-TV and/or KNCT-FM. Each student will produce and direct at least three major TV or radio programs on a regularly scheduled basis. In conjunction with this practical training, the student will compile a daily log of his work experience for in-class discussion and criticism. Prerequisite: TELE 133.

TELE 239C. Telecommunications Seminar. (3-0) Credit: 3

This seminar is designed to allow the student of broadcasting to take an in-depth look at the industry he will soon serve. Individual investigation will be conducted on the current trends in broadcasting, major issues facing the broadcaster, and the importance of broadcasting in today's society. Considerable discussion on such issues as freedom of the press and the future of broadcasting will take place. This course will give the student an up-to-date and realistic perspective of his chosen industry.

TELE 239D. Telecommunications Field Projects.
(1-5) Credit: 3

A continuation of Telecommunications 239B, this course consists of on-the-job training as a production member of KNCT-TV or KNCT-FM for on-air operations. Prerequisite: TELE 239B.

Welding *Entry Level*

A one-year Certificate program

<i>First Semester</i>		<i>Second Semester</i>	
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Welding 141.....	4	Welding 151.....	5
Welding 142.....	4	Welding 152.....	5
Drafting & Design 130	3	Welding 153.....	5
Technical Mathematics 130 ...	3	Welding 154.....	5
Psychology 111.....	1		—
	—		20
	15		

Course Descriptions for Welding (Entry Level)

WELD 141. Beginning Gas Welding. (2-4) Credit: 4

Intensive classroom instruction will be conducted in oxy-acetylene welding. Fusion type welds will be made under a variety of positions, conditions, and materials. Instruction will include use and operation of oxy-acetylene cutting torch.

WELD 142. Beginning Arc Welding. (2-4) Credit: 4

Intensive classroom instruction will be conducted in electric arc welding. Welds will be made in all positions with various types of electrodes. A basic understanding of metal properties and characteristics will accompany all instructional materials.

WELD 151. Advanced Arc Welding. (2-6) Credit: 5

Theory and practice of shielded metal arc welding on tests required by industry. Emphasis will be placed on preparing the student for certification tests. Prerequisite: WELD 142.

WELD 152. Advanced Welding Processes (MIG & TIG). (2-6) Credit: 5

Theory and practice of MIG & TIG welding. Course to include study of shielding gases used in these processes.

WELD 153. Weld Testing Methods. (2-6) Credit: 5

Theory and practice of making basic destructive and non-destructive weld test. This will include guided bend, nick break, liquid penetrant, and magnetic particle testing. Prerequisite: WELD 142.

WELD 154. Welding Fabrication and Lay-out. (2-6) Credit: 5

Practical application of steel fabrication and general lay-out work. Blueprint with welding symbols will be used on all projects. Prerequisite: WELD 142 and DD 130.

WELD 146. Welding Fundamentals. (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. (Special industrial application).

Continuing Education

The purpose of this non-credit program is to meet the continuing educational requirements of the community. To achieve this purpose, organized programs of instruction are provided in response to expressed needs. Generally, classes provide training for the individual; 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, industries, and the desires of local citizens. There are no limits to the number or variety of courses. Classes are often offered in the vocational business fields as well as practical arts. Area employees and businessmen are periodically consulted for recommendations as to types of courses needed. In addition, the appreciation of, and participation in practical arts and vocational interests is encouraged. These courses are an important segment of the Continuing Education Program.

Any further information may be obtained by contacting the Director of the Evening College.

Typical courses are listed below:

Agriculture/Horticulture

Horse Care and Management
Vegetable Gardening

Arts & Hobbies

Guitar I
Guitar II
Macrame
Crewel Embroidery

Athletics and Recreational

Advanced Square Dancing
Ballroom Dancing
Belly Dancing
Hunter Safety
Intermediate Sailing
Ladies Self Defense
Sailing
Scientific Fishing
Slinnastics
Square Dancing
Techniques of Horseback Riding

Business

Federal Service Entrance Exam
Fundamentals of Tax Preparation
How to Prepare for ACT, SAT, & College Boards
Real Estate Appraisal
Real Estate Brokers
Real Estate Prep

Communications

Conversational German
Conversational Spanish I
Conversational Spanish II
Interpersonal Communications

Educational

Driver Education (Adults)
Driver Education
Defensive Driving
Dog Obedience Training
Personal Cosmetology
Motor Cycle Tune Up
Small Engine Repair
Automotive Orientation
You, Your Child and Drugs

Homemaking

Gourmet Cooking
Interior Decoration
Intermediate Sewing
Sewing I

Science

Medical Terminology