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North Lake College Catalog
Volume One  1977-78

The Dallas County
Community
College District

A Community College District recognized and sanctioned by
The Coordinating Board, Texas College and University System

North Lake College
Candidate Status in the Southern Association of Colleges and
Schools (SACS)
Member of the American Association of Community and Junior
Colleges
Member of Texas Public Community/Junior College Association
Member of the Association of Texas Colleges and Universities
Member of the League for Innovation in the Community
College
An Affirmative Action Equal Opportunity Institution

The information in this catalog is based upon present conditions and is subject to change without notice. The College reserves the right to modify or amend any statement or policy to reflect current Board policies, administrative regulations or procedures and applicable State or Federal laws or regulations.
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<td>September 2</td>
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</tr>
<tr>
<td>November 28</td>
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<td>December 9</td>
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</tr>
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<td>Final examinations</td>
</tr>
<tr>
<td>December 23</td>
<td>Semester closes, 4 p.m.</td>
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</tbody>
</table>
SPRING SEMESTER, 1978

January 9     Faculty Reports
January 10-12 Registration
January 13    Faculty Professional Development
January 14    Saturday classes begin
January 16    Classes begin, 7 a.m.
January 20    Last day for tuition refund, 4 p.m.
January 31    Twelfth class day
February 17   Faculty Professional Development (no classes)
March 18      Spring break begins, 12 Noon
March 27      Classes resume, 7 a.m.
May 2         Last day to withdraw with a grade of “W,” 8:30 p.m.
May 10        Last day of classes
May 11-16     Final examinations
May 13        Final examinations for Saturday classes
May 16        Graduation, 7:30 p.m.
May 16        Semester closes, 8:30 p.m.

SUMMER SESSION, 1978

First Session
May 29        Memorial Day Holiday
May 30        Registration
June 1        Classes begin, 7 a.m.
June 2        Last day for tuition refund, 4:00 p.m.
June 28       Last day to withdraw with a grade of “W,” 8:30 p.m.
July 4        Independence Day Holiday
July 6        Final examinations
July 6        Semester closes, 8:30 p.m.

Second Session
July 10       Registration
July 12       Classes begin, 7 a.m.
July 13       Last day for tuition refund, 8:30 p.m.
August 8      Last day to withdraw with a grade of “W,” 8:30 p.m.
August 15     Final examinations
August 15     Semester closes, 8:30 p.m.
ADMINISTRATION

Administrative Staff/North Lake College

President ........................................... Donald L. Newport
Vice President of Instruction ..................... Glen I. Bounds
Vice President of Student Services .............. Walter H. Bowie
Vice President of Business Services ............. Mike E. Howard
Public Information ............................... Sue Stallings Anders

North Lake College Telephone Directory Listings

Admissions and Registrar .......................... 255-5220
Business Office .................................... 255-5231
Community Service Programs ....................... 255-5200
Evening Administration ............................. 255-5205
Financial Aids ..................................... 255-5218
Library-Learning Resources ......................... 255-5310
Security Office .................................... 255-5244
Co-op Education and Placement ..................... 255-5297
Health Center ..................................... 255-5208
President .......................................... 255-5229
Vice President of Instruction ...................... 255-5228
Vice President of Student Services ............... 255-5226
Vice President of Business Services .............. 255-5225
Public Information Office ........................ 255-5269
Technical/Occupational Programs .................. 255-5234

Dallas County Community College District

Chancellor .......................................... Bill J. Priest
Vice-Chancellor of Academic Affairs ............... R. Jan LeCroy
Vice-Chancellor of Business Affairs ............... Walter L. Pike
Vice-Chancellor of Planning ......................... H. Deon Holt
Director of Computer Services ..................... James R. Hill
Director of Public Information ..................... Claudia Robinson
Director of Personnel ................................ Quincy Ellis
Director of Technical/Occupational Education ..... John S. Owens
Assistant to the Chancellor ........................ Steven K. Mittelstet
Special Assistant to the Chancellor ................. John Pickelman
The Dallas County Community College District's six innovative educational communities are dedicated to a common goal: serving in the best possible way the complex, varied and ever-changing educational requirements of a growing metropolitan community.

Each of the District's six colleges — Cedar Valley, Eastfield, El Centro, Mountain View, North Lake and Richland — is therefore committed to providing every person in Dallas County a quality educational experience, whether the person is a youth setting forth toward a degree in medicine, or an adult wanting to enrich his leisure hours with an interesting hobby.

There is a place for a student who wishes to spend a year or two preparing himself to enter a trade or profession, and a place for an employed person who wants to further his training in his occupational field.

There is a place for the very bright high school student who is ready to undertake college-level training in advance of his graduation from secondary school, and a place for the high school dropout who has changed his mind about the necessity of education in today's complex, demanding society.

There is, simply stated, a place for everyone.

Of primary importance to the District's goal is making certain that a student's educational program is tailored to his needs, abilities and ambitions. The philosophy of the District is to create an educational program for an individual, rather than to try to squeeze or stretch an individual to fit an "educational mold."

Every student is offered competent, intensive counseling to help discover his goals and special abilities. Continued guidance is available to update a student's educational program if his goals change during his college experience. This emphasis on counseling, rare for some institutions, is routine procedure at all District colleges.

The District officially became the Dallas County Community College District in 1972, when its philosophy, function and breadth outgrew the traditional "junior" college label. The new name more closely states the District's mission — to meet the educational needs of the entire metropolitan community.

Dallas County voters created the District in May 1965 and approved a $41.5 million bond issue.

The following year the District's first college, El Centro, opened its doors for the fall semester in the heart of downtown Dallas. In August 1970, Eastfield College and Mountain View College enrolled their first students and the multi-campus district envisioned by the District planners became a reality. Richland College became the District's fourth college in the fall of 1972.

In September of 1972, the voters of Dallas County approved the sale of an additional $85 million in bonds, thereby paving the way for expansion of existing campuses as needed and the planning and construction of three more colleges. The first priority in the expansion program was the remodeling and enlarging of El Centro.
College. The first phase of that program was completed in time for the 1976-77 academic year.

In 1977, Dallas County Community College District opened two new campuses, Cedar Valley College in Lancaster, and North Lake College in Irving. Brookhaven College, the final college in the seven-campus master plan, is now under construction in Farmers Branch and is scheduled to open for enrollment in 1978.

How do the District's colleges serve the educational requirements of such a complex family? The answer is found in educational offerings in four broad categories:

—For the student seeking the first two years of work toward the goal of a bachelor's or higher degree, the colleges offer a wide range of courses which are transferable to senior colleges and universities.

—For the student wishing to enter an occupation at a level above the bottom rung of the ladder, the colleges offer one-year and two-year programs of credit courses covering specific technical/occupational fields.

—For the employed person wishing to improve his knowledge of his field, or train for a move into a new occupational field... the colleges offer a broad range of credit and non-credit adult education courses.

—For the person who simply wants to make life a little more interesting, there are community service programs offering a myriad of subjects on cultural, civic and avocational topics.

The Dallas County Community College District Board of Trustees. Seated, left to right, Mrs. Eugene McDermott, Vice-Chairman; R. L. Thornton, Jr., Chairman; Dr. Bill J. Priest, Chancellor and Secretary to the Board; and Mrs. William J. (Pattie) Powell. Standing, Robert H. Power, Durwood Sutton, Carie E. Welch, and Jerry Gilmore.

North Lake is the culmination of years of planning to build a college center which will make learning opportunities accessible to all the citizens of the area and is another link in the Dallas County Community College District's plan to build facilities close to where people live and work.
However, North Lake will be more than just another facility. It will be an example of putting into operation what we know about teaching and learning. The facility itself is designed to provide you as a student with a pleasant environment, a place where you are the customer and where you can see and explore new educational opportunities. It would not be unrealistic to consider North Lake your educational shopping center.

As an educational shopping center, the College realizes that to stay in business, it needs to deliver the kinds of goods and services which you want and need. For example, the College has designed a flexible system to encourage you to enter when you are ready, leave when you have completed your objectives, and re-enter when you feel a need for more education.

Nearly all programs allow you to progress based upon your ability to learn and perform the required objectives without freezing you into a set time requirement which does not consider your individual learning rate. Carrying this concept a step further, all programs at North Lake are based upon performance objectives so that you will know exactly what is required for successful completion. Another unique feature of North Lake is its dedication to providing most of you with a variety of "earn and learn" experiences so that the reality of the everyday world of work is combined with the classroom laboratory.

In this light, the college is proud to consider its $21,000,000 campus a people place where all people feel comfortable, but the North Lake concept also recognizes that education can no longer be looked upon as taking place only in a school building. The college looks upon the total community as having potential for teaching and learning. As a student at the college, you will have the opportunity to see the real world and what such a partnership between education and society at large can produce.

Finally, just developing an immediate, good educational program for you and the communities we serve is not enough. The educational process is a human one and if it is to really be successful, we must be concerned with you throughout life. As we look to the future, we know that rapid change is a constant we can depend upon and that you will likely have a need for future education five, ten, or twenty years from today. North Lake will actively work to assist you to get your first job or to make a successful transition to a four-year college after completing one of its many programs. And, we will follow up with you to determine how you are doing and what strengths and weaknesses we have as a college. But, most important, your college will work hard to assure that you feel a part of the institution throughout your life and to welcome you back at any time for further skill development or enrichment.

After all, your success is North Lake’s success. You are important to us.

Donald L. Newport
President
Accreditation and Affiliation at North Lake College

Colleges of the Dallas County Community College District are members of the American Association of Community and Junior Colleges and are recognized and sanctioned by the Coordinating Board of the Texas College and University System. The academic transfer curriculum is coordinated with senior colleges and universities to facilitate the transfer of credits to those institutions. North Lake College enjoys candidacy status with the Southern Association of Colleges and Schools. All sister colleges of the District have enjoyed the same well considered relationship with this accrediting council and are proud of the support shown our colleges by this prestigious organization.

League for Innovation

North Lake College of the Dallas County Community College District is a member of the League for Innovation in the Community College. Sixteen outstanding community college districts throughout the nation compose the League membership. Innovative experimentation and the continuing development of the community college movement in America are the purposes and goals of the League. Membership commits the Dallas County Community College District to research, evaluation and cooperation with other community college districts in providing the best possible educational program and fullest utilization of its resources to serve the needs of its community.
ADMISSIONS
AND
REGISTRATION

The College's admission policy is "open door." It insures that all persons who can profit from post-secondary education will have an opportunity to enroll.

Applications will be accepted any time prior to registration. Since registration priorities are assigned according to the date an applicant fulfills all admission requirements, applicants should plan to submit applications at least three weeks before registration to insure adequate counseling and schedule planning.

Applications received after this date will receive a low priority. All applicants are limited in their selection of classes to those available when they register.

Enrollment is available in certain courses at times other than regular semester registration. Consult the registrar's office for information.

1. Beginning Freshmen:
   Students enrolling in college for the first time may apply if they are:
   - A graduate from an accredited high school.
   - A graduate from an unaccredited high school who is eighteen years of age.
   - A non-high school graduate who is eighteen years of age and whose high school class has graduated.
   - A high school student recommended by the high school principal. In this case, a limited number of high school seniors may be concurrently enrolled for special study, but not for more than six hours per semester, providing the student is making normal progress toward high school graduation.

2. Transfer Students:
   - College transfer applicants will be considered for admission on the basis of their previous college record. Academic standing for transfer applicants will be determined by the Office of Admissions based on the standards established by the College.
   - Students on scholastic or disciplinary suspension from another institution must petition via the Admissions Office to the Committee on Admissions and Retention for special approval.
3. Former Students:
   Former Dallas County Community College District students will be required to submit an application for readmission to any one of the District colleges. A student will not be readmitted to any college within the District if he or she has unsettled financial debts at any of the District Colleges.

4. Non-Credit Students:
   Students seeking enrollment for non-credit courses are directed to contact the Division of Community Service Programs.

   Exceptions to these requirements will be referred to the Committee on Admission and Retention.

The College is authorized under Federal Law to enroll non-immigrant alien students. However, under present conditions, foreign students are not admitted until all admission requirements are complete. A personal interview with the foreign student advisor and special permission from the President of the College are required before admission can be finalized. In addition to admission requirements for all other students, international students must demonstrate proficiency in English, provide evidence of financial stability, and meet with the foreign student advisor for general counseling concerning his potential for profiting from the educational programs of our College.

Admission procedures for international students are regulated by the President of the College and may require his permission for enrollment.

We encourage the attendance of mature students of all ages from all ethnic backgrounds and fully comply with the provisions of Title VI of the Civil Rights Act of 1964 (P.L. 88-352).

The following material must be submitted to the Office of Admissions before a student's entrance file is considered complete:

- an application for admission
- an official transcript from the last school (high school or college) attended. Transcripts are required by the college's accrediting agency and are important for program advising in the Counseling Center. Students who are seeking a certificate or associate degree are required to submit transcripts of all previous college work prior to the end of the first semester.
- written proof from a medical office of
  - a negative tuberculin skin test or chest X-ray
  - a polio immunization if the applicant is under 19 years of age
  - a diphtheria/tetanus injection within the last ten years

This medical proof is required by state law (Senate Bill 27).
The Dallas County Community College District has committed its staff to providing programs which may be entered at the first of every month. In addition to the regular registration periods, registration for courses offered through Flexible Entry is held the first Monday of each month. Registration is in the Registrar’s Office and requires instructor’s approval.

Students should check with the Registrar’s Office each month to determine the sections which will be offered.

Each college in the Dallas County Community College District has no geographical boundary restrictions for enrollment at any of its campuses. Admission requirements for all of the colleges are established by the DCCCD Board of Trustees and are the same for all District colleges. Students may enroll in more than one college at the same time.

Transfer credit will be given for all passing work completed at accredited colleges and universities. The Admissions Office will be responsible for the evaluation of all transfer credit.

Students who are admitted with a grade point deficiency cannot graduate from this college until this deficiency has been cleared.

Credits earned in military service-connected schools or through the U.S. Armed Forces Institute will be reviewed by the Director of Admissions and credit granted if applicable.

Tuition is charged on a sliding scale according to the number of credit hours in which a student is enrolled and his place of legal residence.

Tuition is subject to change without notice by the Board of Trustees or the Texas Legislature.
### Tuition — Fall or Spring Term

<table>
<thead>
<tr>
<th></th>
<th>Residents of Dallas County</th>
<th>Residents of Other Texas Counties</th>
<th>Non-Texas Residents*</th>
<th>Out-Of-Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Fees and Charges</td>
<td>$6 per credit hour through 10 credit hours and $4 per credit hour in excess of 10 credit hours; Minimum $25</td>
<td>$20 per credit hour through 10 credit hours and $4 per credit hour in excess of 10 credit hours; Minimum $25.</td>
<td>$40 per credit hour</td>
<td>$40 per credit hour; Minimum $200.</td>
</tr>
</tbody>
</table>

If a student believes his residence status has changed at any time during his enrollment, it will be the student's responsibility to complete a written request for change of status in the Registrar's Office.

### Tuition — Summer Session

<table>
<thead>
<tr>
<th></th>
<th>Residents of Dallas County</th>
<th>Residents of Other Texas Counties</th>
<th>Non-Texas Residents*</th>
<th>Out-Of-Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-6 Credit Hours</td>
<td>$10 per credit hour, with a minimum of $25.</td>
<td>$30 per credit hour</td>
<td>$45 per credit hour</td>
<td>$45 per credit hour, with a minimum of $100.</td>
</tr>
<tr>
<td>7 Credit Hours</td>
<td>$64.</td>
<td>$184.</td>
<td>$310.</td>
<td>$310.</td>
</tr>
</tbody>
</table>

* A non-resident student is hereby defined to be a student less than eighteen (18) years of age, living away from his family and whose family resides in another state or whose family has not resided in Texas for the twelve (12) months immediately preceding the date of registration, or a student eighteen (18) years of age or older who resides out of the state or who has not been a resident of the state twelve (12) months immediately preceding the date of registration.

### Special Fees and Charges

- **Student Service Fee**
  - 12 or more credit hours: $7 a semester
  - 6 to 11 credit hours: $4 a semester
- **Laboratory Fee (per lab)**
  - $2 to $8 a semester
- **Physical Education Fee**
  - $5 a semester
- **Private Music Lessons Fee**
  - $20 per ½ hour
  - $35 per hour
- **Audit Fee**
  - The charge for auditing a course is at the same rate as taking a course for credit regardless of the number of hours enrolled except that a student service fee is not charged.
  - **Credit by Examination***
    - $20 per exam

**Available only to music majors enrolled for 12 hours or more.**

***This fee can change without prior notice.**
Additional fees may be assessed as new programs are developed with special laboratory costs. These fees will always be kept to a basic practical minimum for the program involved. A graduation fee is not assessed students receiving a degree; however, each student taking part in the commencement exercise will pay for cap and gown rental.

The Refund Policy is based on the fact that student tuition and fees provide only a fraction of the cost of providing educational opportunities. When a student enrolls in a class, he reserves a place which cannot be made available to another student unless he officially drops the class during the first week of the semester. Also, a student's original enrollment represents a sizeable cost to the District whether or not he continues in that class. Therefore, a refund will be made only under the following conditions.

- **No 100% refund is granted unless college error is involved.**
- **An 80% refund of tuition and fees may be obtained through the date noted in the college calendar.** 80% refund will be given through the first two class days of a six week summer session or Fasttrak semester. Refunds for flexible entry courses will be considered through completion of the second day of class from the date of enrollment.
- **Credit by Examination:** No refund will be given for advanced Credit by Examination. No refund will be given for advanced placement or CLEP exams.
- **A physician's statement must be submitted with petitions related to medical reasons for withdrawing from college.**
- **Requests for refunds must be submitted before the end of a semester session for which the refund is requested.**
- **A refund of less than $4 for tuition and/or fees will not be made.**
- **Refund Petition forms are available in the office of Financial Aid and Vice President – Student Services.**

A student who feels that his refund request is due to an extenuating circumstance beyond the limits of the refund policy should be explicit when completing the refund form. All requests for refund will be referred to the Refund Petition Committee. The Committee's recommendations are made to the Vice President — Student Services who notifies the student of the action to be taken. Refund checks normally require a minimum of one month from date of approval.
Servicemen's Opportunity College

The colleges of the Dallas County Community College District, in cooperation with other community colleges in the United States, participate in the Servicemen's Opportunity College. This program enables the institution to plan an educational experience with the serviceman regardless of his mobility pattern.

For further information, contact the Office of Financial Aid.

Financial Aid

Our college offers a full range of financial aid programs. For additional information see page 26.

Advisement Procedures

When students receive their letter of acceptance, they will be invited to an advisement session. This session may be conducted individually or as a group with a counselor; however, beginning freshmen are expected to attend a New Student Orientation. It is designed to help students make schedule choices based on assessment of courses or programs. The half-day session is designed for students who are enrolling in college for the first time and who expect to attend full-time.

A variety of diagnostic instruments may be used for assessment and placement in courses or programs; however, none are required for admission. These instruments are used as counseling tools for more reliable placement. For those students who wish to send their ACT scores for placement, use the code for this college (4141).

Developmental Studies are provided for those students who may require developmental assistance in reading, writing, or math. Test data, transcripts of previous work, and counseling assessment may be used to determine placement in this program.

Name, Address, and Social Security Number

Students are reminded to inform the Office of the Registrar of any changes which occur in their name or address. All applicants are required to furnish a social security number which is used as the student's identification number and to insure accuracy of student records.

Family Educational Rights and Privacy Act of 1974

In compliance with the Family Educational Rights and Privacy Act of 1974, Federal Law 93-380, information classified as "directory information" may be released to the general public without the written consent of the student.

Directory information is defined as:
☐ Student name
☐ Student address
☐ Telephone listing
☐ Dates of attendance
☐ Most recent previous educational institution attended
☐ Other information including major field of study and degrees and awards received.

A student may request that all or any part of the directory information be withheld from the public by submitting a written request to the Registrar's Office during the first twelve class days of a fall or spring semester, or the first four class days of a summer term. If no request is filed, information will be released upon inquiry. No telephone inquiries will be acknowledged; all requests must be made in person.

Directory information is the only part of a student record that may be released without written consent from the student. No transcript or inquiries concerning an academic record will be released under any circumstances without WRITTEN CONSENT from the student.

ACADEMIC INFORMATION

The College confers the Associate in Arts and Sciences Degree or the Associate in Applied Arts and Sciences Degree upon students who have completed all the general and specific requirements for graduation.

Each degree candidate must earn the last 15 hours as a resident student in the District colleges or accrue 45 hours in residence.

The degree will be granted by the college at which the student took the last 15 hours or where the majority of hours were accrued.

Correspondence work submitted for graduation credit must be approved by the Registrar. No more than one-fourth of the work required for any degree or certificate may be taken by correspondence.
Associate in Arts and Sciences Degree

A student must have a total of 60 hours and present an average grade of at least "C" (2.0).

These 60 hours may be earned at any Dallas County Community College District college and must include:

- **English** 101-102, plus an additional 6 hours of English. 12 Hours
- **Laboratory Science** (Music majors are exempt from this requirement. Check listings under subject field). 8 Hours
- **History** 101-102* and **Government** 201-202* (No substitutions allowed). 12 Hours
- **Humanities**: To be selected from Theatre 101, Art 104, Music 104 or Humanities 101. 3 Hours

A maximum of two physical education activity hours may be counted as credit toward requirements for graduation. All students who expect to transfer to a four-year institution are urged to complete their four semester requirement in physical education during their freshman and sophomore years.

Courses numbered 99 and below may not be counted toward the 60-hour minimum.

The student is urged to consult the catalog of the institutions to which he may transfer for their special requirements. These catalogs should be used by the student and his advisor as the basis for the program plan.

*Only 3 hours of History or 3 hours Government credit may be earned by credit-by-examination. (CLEP credit does not meet this requirement.)*

Certification of Associate in Applied Arts and Sciences Degree

A minimum of 60 hours exclusive of Art 199, Music Recital 199, and Theatre 199 must be presented for the degree with an average grade of at least "C" (2.0). All of the prescribed requirements for the specific technical or occupational program for which the student is enrolled must be completed. For some programs, the semester hour total is over 60.

A maximum of two physical education activity hours may be counted as credit toward graduation. Courses numbered 99 and below cannot be included to meet degree or certificate requirements.

Certificate requirements are detailed under specific programs listed in the technical/occupational programs section of this catalog. A "C" (2.0) grade average is necessary for all courses listed in the requirements of the certificate program in which the student is enrolled.

Certificate Plans

Procedure for Filing Degree and Certificate Plans

- The student should request a degree plan from the Admissions Office upon completion of 30 semester hours. Transcripts of all previous college work must be on file at the time of the request for a degree plan.
- A student following a 1-year certificate program should request an official plan during his first semester.
Candidates for any degree or certificate must meet the requirements as set forth in the catalog for the year of first enrollment unless he elects to graduate under the requirements of a later catalog. The candidate must indicate the catalog of his choice when he files his degree plan.

To qualify for a second degree or certificate a student must fulfill the residence requirement for the second degree and must complete all required courses in the plan for the second degree or certificate.

No student will be permitted to carry more than 18 semester units of coursework or more than 5 classes plus physical education without permission of the Director of Counseling. Employed students are advised to limit their academic loads in accordance with the following recommendation: If a student carries a full college load (12 semester units or more), he should not work more than 20 hours per week. If he must work more hours, his credit unit load in college should be reduced proportionately.

The recommended load limit in a 6 week summer session is 6 semester units of credit. A total of 14 semester units of credit is the maximum that may be earned in any 12-week summer period.

Extreme care should be exercised in the registration process. A student should schedule only those courses for the days and hours he is able to attend. As a general policy, class changes are only authorized for students who have been incorrectly placed.

The change is not completed until it has been processed by the Registrar.

A student must drop a class or withdraw from college in the following manner:

☐ Obtain a drop or withdrawal form from a counselor and follow the procedure outlined.

☐ Should circumstances prevent a student from appearing in person to withdraw from college, he may withdraw by mail by writing to the Director of Admissions. No drop or withdrawal requests are accepted by telephone.

Students who drop a class or withdraw from college before the deadline will receive a “W” in each class from which they have withdrawn. The deadline for receiving a “W” is two weeks prior to the end of the semester. After that time a student will receive a performance grade in the course.

A person who believes he is qualified by experience or previous training may take a special examination to establish credit in a particular course. Not all courses are approved for credit by examination. A list of those credits which may be established through this method is available in the Testing Center.
Students will be allowed to earn as many credits through this procedure as their needs require and ability permits. The last fifteen semester hours required for graduation in any degree or certificate program must be earned in residency and may not be earned through credit by examination.

Credit by examination may be attempted only one time in any given course. A score of "C" is required to receive credit. Only currently enrolled students will have the semester hours earned through examination become part of their permanent record. Request for examinations should be made to the appropriate division office which will provide the necessary petition forms and advise the student of the procedure.

A student, whether part-time or full-time, will pay $20 per exam. This fee must be paid prior to taking the exam and is nonrefundable. Upon transferring to a four-year institution, final acceptance of credit by examination is determined by that institution. No more than three credit hours can be earned by credit by examination for the degree requirements in History and Government.

Any person 18 years of age or older may, with the consent of the instructor, audit a course. No credit is given nor exam required for auditing.

Auditing procedures will be administered by the Registrar. No audits will be approved until completion of drops and adds by credit students. Most lab courses may not be audited. In collegiate level courses, the combined number of semester units in credit and audit courses should not exceed eighteen.

At the end of each semester, grade reports are issued to each student.

Transcripts will be withheld if the student does not have all required student information on file in the Registrar's Office or if any financial obligations to the College have not been paid.

Final grades are reported according to the following grading system:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Interpretation</th>
<th>Grade Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4 points</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3 points</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>2 points</td>
</tr>
<tr>
<td>D</td>
<td>Poor</td>
<td>1 point</td>
</tr>
<tr>
<td>P</td>
<td>Progress</td>
<td>Not Computed</td>
</tr>
<tr>
<td>F</td>
<td>Failing</td>
<td>0 points</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>Not Computed</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawn</td>
<td>Not Computed</td>
</tr>
</tbody>
</table>

Grade points earned for each course are determined by multiplying the number of points for each grade by the number of credit units the course carries. A student's grade point average is computed by adding the total grade point values for all courses for which grade point values may be computed and dividing by the appropriate number of credit units attempted during the same period.
Incomplete grades are given when an unforeseen emergency prevents a student from completing the work in a course. Division Chairmen must approve all "I" grades. Incomplete grades must be converted to performance grades within 90 days after the first day of classes in the subsequent regular semester. After 90 days, if the work has not been completed, the "I" will be converted to a performance grade.

College work is measured in terms of semester credit hours; credit offered for each course is included with the course description.

Acceptable scholastic performance is the maintenance of a grade-point average of 2.0 (on a four-point scale) or better. A student may not be graduated from any degree or certificate program unless he has a cumulative grade-point average of 2.0 or better. Grade points and hours earned in the Developmental Studies courses are computed when deriving a student's scholastic standing; however, they are not computed for graduation requirements.

The policies on scholastic probation and scholastic suspension apply to full-time students (12 semester units or more) and to part-time students when they have completed a total of 12 semester units. These policies are based on a 4.0 grade point scale.

The following criteria will be used to determine academic standing:

- Students who have completed a total of 12 semester units in a college will be placed on probation if they fail to maintain a 2.0 cumulative grade point average.
- Students who have been placed on scholastic probation may be removed from probation when they earn a 2.0 cumulative grade point average.
- Students on scholastic probation who achieve either a cumulative grade point average of 1.5 or above or a previous semester grade point average of 2.0 or above may continue on scholastic probation.
- Students on probation who do not meet the requirements of paragraph 3 will be placed on scholastic suspension.

Suspension for the first time is one regular semester and subsequent suspensions, two regular semesters.

Students on scholastic probation are expected to enroll in a Human Development course. Under special circumstances a counselor may waive this course for probationary students.

Suspended students must file a petition for readmission. The conditions for readmission are established and administered by the Vice President — Student Services.
Any student pursuing an academic transfer program who wishes to transfer to a career program may have his earned credits evaluated for the possibility of disregarding any grades of his choice below "C" as long as the student follows the career program. This procedure is contingent upon the student remaining in a career program. A change to an academic transfer program places the student under the original conditions of that program.

This procedure will apply both to our students and to the students transferring from other institutions. Any student wishing to take advantage of this opportunity should state his intentions in writing to the Director of Admissions prior to registration and assume the responsibility of informing his counselor during pre-registration advisement.

**Library Obligations**

Willful damage to library materials (or property) or actions disturbing to the other users of the Library may lead to revocation of library privileges. Cases involving such damage will be referred for further action to the appropriate authorities.

All books and other library materials must be returned before the end of each semester. No grades will be sent to students who have not returned all such materials or who have unpaid library fines. No transcripts of grades may be sent until the library record is cleared.

**Class Attendance**

Class attendance is the responsibility of the student. It is also the responsibility of the student to consult with his instructors when an absence must be excused. Instructors are given the prerogative of determining the excusability of student absences.

Instructors are required to report students to the Vice President of Student Services' office for excessive absences. Excessive absence reports are made when absences have reached 3 consecutive hours or an accumulation of 6 hours; the student is then suspended from the class.

Students dropped for excessive absence will receive a grade of "W."

**Repetition of Courses**

In computing cumulative grade-point averages, only the latest grade earned in repeated courses will be included. However, transcripts indicate all work completed in the District. This policy will apply, even if the latest grade is lower than the preceding grade. In cases where a student withdraws from a course which he is repeating, his cumulative grade-point average will be calculated by using the immediately preceding grade in the same course.
A full-time student who has completed at least 12 hours of credit and who earns a grade-point average of 3.00-3.49 will be listed on the college Honor Roll. Full-time students who complete at least 12 hours of credit and who average 3.50-4.00 will be placed on the Vice President’s Honor List. A part-time student who is taking 6-11 credit hours and who maintains a 3.5 or higher grade-point average will receive Academic Recognition. The Honor Roll, the Vice President’s Honor List and the Academic Recognition List will be published each semester.

The Registrar’s Office will send the student’s transcript upon request to any college or agency named. However, a student’s official transcript may be withheld until he has settled all financial obligations to the college. The first transcript will be issued without charge; there is a $1 charge for each transcript requested thereafter.

- **Freshman**: A student who has completed fewer than 30 semester hours.
- **Sophomore**: A student who has completed 30 or more semester hours.
- **Part-Time**: A student carrying fewer than 12 semester hours.
- **Full-Time**: A student carrying 12 or more semester hours.

An annual graduation ceremony is held at the conclusion of the spring semester.

- **Students who have degree plans filed in the Registrar’s Office and who anticipate completion of the degree requirements by the end of the summer session are eligible to participate in the spring ceremony.**
- **Applications for graduation must be made in the Registrar’s Office prior to the announced deadline.**
Our college strives to provide maximum educational opportunities, personal, social, cultural and career development for all students. Such development is stimulated through programs of coordinated college services as needed by any individual student or by groups of students. These services are evaluation, counseling, planning, tutoring, and programs of student activities.

The programs and services are planned to meet the needs of all groups and individuals and to furnish support services enabling each student to reach his potential.

**Testing Center**

The four primary functions of the Testing Center are to administer:

- Psychological tests of personality, vocational interests and aptitudes.
- Academic testing for the college instructional programs. Many courses are individualized and self-paced, permitting students to be tested at appropriate times.
- Diagnostic tests which make appropriate class placement possible. These tests are very strongly recommended to insure student success.
- National testing programs, including ACT, GED, CLEP, and TOEFL.

**Tutoring Services**

For students needing special temporary assistance in coursework, arrangements for tutoring services can be made through the Counseling Office.

Students are encouraged to seek such services through self referral as well as through instructor referral.

**Counseling**

Confidential assistance is provided by the counseling staff in any of the following areas:

- Career counseling regarding possible vocational directions to explore, occupational information, or self-appraisals pertaining to job stability.
- Personal-social counseling regarding adjustment within the college community, relating to instructors or to other people, drug matters, marriage counseling or any other concerns which interfere with personal development.
- Academic advisement regarding appropriate course choice, study habits, remedial work or transferring to another college. Trained paraprofessionals also assist the counselors in this function.
Small group discussions led by counselors focusing on matters of concern in areas where group feedback can be helpful. Participation in these confidential groups is available as space permits.

Testing to provide additional standardized testing information when called for in planning or decision making. Tests are available to assess abilities, vocational interests and personality.

Referral to provide in-depth assistance if necessary for such matters as financial aid, tutoring, job placement, medical or psychiatric problems.

Because we are a community centered college, counseling services are also provided to residents who are not yet enrolled. The following are examples of community counseling services which may be offered, consistent with the needs of the student population:

- Consultation regarding the decision of whether or not to enter college.
- Consultation regarding possible course selections for vocational advancement or for personal enrichment.
- Consultation with area high schools regarding their students' enrolling at North Lake.
- Consultation for persons desiring to discover and develop their hidden talents.
- Group discussions of a subject-centered nature for parents interested in their children's development; married couples interested in learning to enrich the communication between themselves; mature people considering return to the classroom after many years absence; military veterans returning to civilian life.

The Educational Opportunity Center is sponsored by the Dallas County Community College District and the Special Services Branch of the U.S. Office of Education. This project is designed to offer extensive counseling and information services primarily to persons from economically disadvantaged groups who may profit from further secondary or post-secondary education. This is done by the Mobile Counseling Center, satellite centers through the community and a computer terminal network. The staff will achieve its objectives through such activities as one-to-one counseling, disseminating educational information, acquiring financial aid for needy students, bringing the counseling service to the target communities, referring students to appropriate social help agencies, and assisting in the placement of individuals either in schools and/or on-the-job training programs.

For further information, contact the EOC, Main Bank Building, 111 S. Lamar, or phone 746-2269 or 746-2197.
Financial Aid Programs

The Financial Aid Program functions as a multi-purpose financial assistance service for students. A major objective is to provide assistance to students who, without such aid, would be unable to attend college. Basic to this philosophy is the belief that the educational opportunities of able students should not be controlled by their financial resources.

Requests for information should be directed to the Director of Financial Aid.

Students who anticipate the need for financial assistance for college should complete an application well in advance of the semester in which he plans to enroll.

Grants

Basic Educational Opportunity Grant (BEOG). Students that enroll for at least 6 credit hours are eligible to apply for this "entitlement grant." Applications are available in many federal offices, as well as in the Financial Aid Office, and are mailed directly by the student to a central processing place indicated in the instructions. The student receives a Student Eligibility Report which he brings to the Financial Aid Office for interpretation and determination of grant amount according to an objective table provided to them by the federal government for that purpose.

Supplemental Educational Opportunity Grant. This grant is authorized under the Higher Educational Act of 1965 and is designed to help students with exceptional financial need. To be eligible a student must prove such financial need and make satisfactory progress toward the completion of his educational goal. The amount of an SEOG award must be matched by another source, usually an amount earned by the student from a work-study job on campus. SEOG amounts vary from $200 to $1500 per academic year depending on need, total number of applicants, and funds available. Students must apply each academic year to be reinstated.

Scholarships

Our College offers a limited number of scholarships to students who exhibit scholastic ability, and/or need. Individuals, private industries and groups make these scholarships available through the Office of Financial Aid and Placement.

State-Sponsored Scholarships

These scholarships waive payment of tuition for two semesters for the highest ranking graduate of each accredited high school in Texas each year.

Loans

There are several loan funds for students needing long-term as well as short-term assistance.

Hinson-Hazlewood College Student Loan Program. The necessary requirements for this loan are:
- Legal residence in Texas.
- Enrolled or accepted for enrollment for at least a half-time course of study.
- Established financial need.
The amount of loan for which a student may qualify depends upon the income of his family. Married applicants are qualified by considering the income of both husband and wife.

Qualified students may receive up to $1,500 for the nine-month school session.

Repayment begins nine months after the student ceases to be enrolled for at least half the normal course load. Repayment may extend up to 10 years; however, a minimum payment of $30 a month is required. Interest rate is 6.25% per year (adjusted).

**Short-Term Loans.** A student may borrow up to $100 at no interest if funds are available. This loan must be repaid within 90 days or before the end of the semester in which the money is borrowed.

Certain veterans who have no remaining V.A. educational benefits can attend Texas state supported institutions with their tuition and fees waived if they were residents of Texas at the time they entered the service and are now residents of Texas. Contact the Financial Aid office for details.

Benefits under this program are available to students who meet the criteria set up by the Social Security Administration. The Admissions Office acts as liaison between students and the Social Security Administration.

For information on educational benefits, an Indian student should contact the nearest BIA office.

The Texas Education Agency, through the Vocational Rehabilitation Division, offers assistance for tuition and fees to students who are vocationally handicapped as a result of a physically or mentally disabling condition. For further information, contact Vocational Rehabilitation, 4333 North Central Expressway, Dallas, Texas 75205.

The Veterans' Benefits Programs for eligible students is coordinated by the Veterans' Services Office.

Services of Veterans' Services Office include counseling the veteran concerning benefits, V.A. Work Study Programs, financial problems, V.A. loans, career counseling and other areas related to the veteran's general welfare.

When testing indicates that a veteran should enroll in developmental courses such as reading, writing or math, he may pursue these courses with no charge to his eligibility. Tutoring services are also available to the veteran who is having learning difficulties in one or more subjects. For assistance in obtaining tutoring benefits, contact the Veterans' Services Office.
The veteran student who enrolls in college should be aware of some of the V. A. guidelines which are enforced. Violation of the following policies will cause complications in receiving, or loss of, monthly benefits:

1. Class attendance is mandatory. Failure to attend class will result in suspension from class.
2. Veteran students who plan to enroll in developmental courses must be tested and show a need in basic skills before enrollment in these courses.
3. A veteran enrolled in T.V. courses must be pursuing more on-campus credit hours than hours taken by T.V.
4. A veteran student who has successfully completed credit hours at another college or university must submit a transcript from that college or university before applying for V.A. benefits. The transcript will be evaluated and credit granted where applicable.
5. Only enroll in courses required for your degree program. Information on degree requirements may be obtained from the Registrar's Office.
6. A veteran who withdraws or who is dropped from all courses attempted during a semester will be considered as making unsatisfactory progress by the V.A. and may lose future benefits. A veteran student must also maintain a satisfactory grade point average as outlined in the catalog.

The above listed V.A. regulations are subject to change without notice. Students should contact the Veterans' Services Office in order to be aware of current regulations and procedures.

The Financial Aid Office will assist any student desiring on-campus employment. Typically, this part-time employment is designed as a financial aid to assist students while they are in college through:

1. On-campus placement
2. Work-study programs
3. Off-campus student assistantships

The Placement Office will assist any student desiring help in finding off-campus employment.

A placement officer will work directly with students and community employers to locate jobs and students qualified to fill those jobs.

Career placement assistance is available for students nearing completion of their course of study. All students should register with the Placement Office at least one full semester before graduation.

Career Information. A library of career-related literature, including publications from the Women's Bureau, is also housed in the Placement Office and may be checked out by students. Most of this literature is descriptive, designed to provide general information about definite career fields. The library is cataloged alphabetically by career areas and is continually updated.
The Financial Aid and Placement Office reserves the right to review and cancel awards at any time for the following reasons:
- Failure to maintain an acceptable academic record.
- Failure to meet the minimum course load requirements.
- Changes in the financial status of the student or his family.
- Any student in violation of any regulation governing the program from which he is receiving aid.

It is understood that the student is aware of the conditions under which aid is offered and agrees to meet all the necessary requirements.

See page 32.

The Student Development Office develops programs that are visualized as an integral part of the learning experience available at the college.

Through direct contact with a professionally trained staff, the student is encouraged to find new ways of expressing himself, to develop skills in relating to other people, to formulate a new understanding of and respect for himself and his environment. Such programs are vital components of coordinated plans for individual student development.

Student-planned activities such as games, tournaments, speakers, dances, films, art shows, entertainers, intramurals, special-interest groups, clubs, and organizations provide opportunities for a more complete experience for each individual student.

Information regarding participation in any organization may be obtained through the Office of Student Development.

The development of student organizations will be determined by the number of students displaying an interest in the types of organizations available on campus. The Director of Student Development will offer full assistance to interested students in the organizing process.

- Co-curricular Organizations are pertinent to the educational goals and purposes of the college.
- Social Organizations provide an opportunity for friendships and promote a sense of community among students.
- Service Organizations promote student involvement in the community.
- Pre-professional and Academic Organizations contribute to the development of students in their career fields.
- Scholastic Honorary Organizations offer membership to students on the basis of academic excellence and performance.
- Special Interest Organizations may be formed with the permission of the Vice President of Student Services.
The Student Center contains conference rooms and recreational facilities. The Center is open during regular school hours.

Intramurals provide not only team sports activities, but also offer other options such as dominoes, darts, and checkers. A wide range of intramural sports and activities are available. Interested students should contact the Student Development office.

Participation is available on athletic teams for all full-time students on a voluntary non-scholarship basis who meet additional requirements established by the Metro Athletic Conference.

The College Council includes students, faculty, staff, and administrators. All have a vested interest in the school and are therefore entitled and urged to participate in its operation.

The College Council allows the total college population to share in the decision-making process and is composed of the following elements: President's Forum, Commissions, and Ad Hoc committees.

The College student is considered a responsible adult. The student's enrollment indicates acceptance of those standards of conduct which appear on page 86.

The Health Center provides health counseling and education as well as emergency and first aid care. Confidentiality is maintained. No information is ever released without written permission from the student. The Health Center refers students to the appropriate outside source for additional treatment if necessary. Each student is responsible for his own transportation.

A small library is maintained containing health-related materials not available in the main library.

Services for handicapped students offered by the Health Center include note-takers, interpreters, mobility aides, and tutors.

The Health Center is staffed with registered nurses and a physician is on call at all times.

The College does not operate dormitories of any kind nor maintain listings of available housing for students. Students who do not reside in the area must make their own arrangements for housing.

The department of Campus Safety and Security is required by state law to "protect and police buildings and grounds of state institutions of higher learning." Since all of the general and criminal laws of the state are in full force and effect within the campus community, specially trained and educated personnel are com-
missioned to protect not only the physical property of the campus community but also to protect the person and the property of campus citizens. The Security Officers are responsible for enforcing rules, regulations, and Board policies of the College, including a Code of Conduct for students.

EDUCATIONAL PROGRAMS AND SERVICES

Students whose educational objective is the bachelor's degree may complete their first two years at this college before transferring to a four-year institution.

The academic transfer curriculum is coordinated with senior colleges and universities to facilitate the transfer of credits to these schools.

The College offers a variety of technical/occupational programs which enable a student to enter his chosen field as a skilled employee after one or two years of college work.

These programs are established only after studies verify that employment opportunities will exist at the time the student completes his training, matching the community's manpower requirements with the ambitions and goals of the student.

This realistic approach to occupational education is made possible by the excellent cooperation of local industry, business and public agencies who more and more are looking to the District's colleges for skilled personnel.

A continuous liaison is maintained with prospective employers to assist in placement of graduates and to keep the training programs up-to-date with the current job requirements.

Recommendations for adding new programs to the College offerings will be made periodically based on community studies which identify additional training needs.

Technical/occupational courses carry college credit leading to a Certificate of Completion (1-year programs) or an Associate in Applied Arts and Sciences Degree (2-year programs).
Cooperative Work Experience Education

Students may enrich their education in certain career programs by enrolling in Cooperative Work Experience Education courses. These courses are designed to assist students in coordinating classroom study with related on-the-job experience.

Requirements:
- Students must have completed at least two courses in their occupational major to be eligible for Cooperative Work Experience.
- A full-time student must be enrolled in twelve credit hours or more; two courses must relate to the student’s work experience, and up to four credit hours may be in Cooperative Work Experience.
- A part-time student may take up to four credit hours of work experience.
- Part-time students must be concurrently enrolled in a course related to his work experience.
- To enroll in a Cooperative Work Experience course, a student must have the approval of his instructor/coordinator.

Course credit will be awarded at the rate of one credit hour for each 80 hours of approved work experience accomplished during the semester. This is approximately five hours a week during a sixteen week semester. The work experience credit hours available in selected career programs will be listed in the curriculum pattern for that program.

Evening College

In dynamic, growing communities such as those encompassing our college, people are involved. Their community involvement often creates a need for gaining and developing knowledge and skills. Because of their involvement it is often impossible for them to attend college during daytime hours. The evening program offers these people the same broad spectrum of educational programs that is available to full-time day students.

Instructors in the evening program are selected from full-time staff and from outstanding Dallas area educators and other professional specialists who are interested in teaching.

To enroll in the evening program call or write the Director of Admissions.

Telecourses

We offer a variety of college credit courses via television. The schedule of telecourses, which varies each semester, may include courses in anthropology, astronomy, business, earth science, ecology, biology, English, economics, government, history, humanities, and psychology. Content and credit for these courses are the same as for similar courses taken on campus. Telecourses include the viewing of television programs on KERA Channel 13 each week, plus reading, study guide and writing assignments. Students come to the campus for an orientation session at the beginning of the semester for one to four discussion meetings, for
three or four tests, and for laboratory sessions as appropriate for lab science courses during the semester. These visits to the campus are normally scheduled so that they may be attended at a time convenient to the student.

Telecourses may be taken in conjunction with on-campus courses or by persons who are taking no on-campus instruction. Registration for telecourses may be accomplished by mail or through the normal on campus registration procedures.

The Community Service Program offers a roster of non-credit courses in all areas of personal and professional development. These courses are designed for the individual who wants to sharpen an old skill, learn a new skill or merely broaden his cultural horizon without pursuing a degree.

The program consists of courses, seminars, lectures, institutes, workshops, demonstrations and performances. These activities are frequently referred to as continuing education, adult education, or non-credit courses, and they do not carry the traditional academic college credit designation.

No entrance requirements or previous educational experience is needed. Admission is on a first-come/first-served basis, and registration consists of filling out a form and paying the fee. Continuing Education Unit (CEU) transcripts of Community Service courses successfully completed are available.

The Community Service Division offers programs for all interests and ages through the year in a variety of locations and times. If you or your group has a particular interest or educational need, contact the Community Services Office.

Community Service instructors possess high standards of professional preparation and experience in their career fields.
CURRICULUM

Divisions of the College

BUSINESS AND MANAGEMENT DIVISION

Accounting
Bookkeeping
Computer Science
Economics
General Business
Legal Secretarial
Office Occupations
Mid Management
Real Estate
Secretarial Careers

SCIENCE/MATHEMATICS/TECHNOLOGY DIVISION

Air Conditioning and Refrigeration
Biology
Blueprint Reading
Building Trades
  Carpentry
  Electricity
Chemistry
Developmental Mathematics
Diesel Mechanics
Earth Science
Geology
Geography
Mathematics
Physics

SOCIAL SCIENCES/PHYSICAL EDUCATION DIVISION

Anthropology
Government
History
Human Development
Psychology
Religion
Social Science
Sociology

COMMUNICATIONS/HUMANITIES DIVISION

Art
Communications
Developmental Reading
English
French
Humanities
Journalism
Music
Philosophy
Photography
Spanish
Speech
Theatre
In the following list of courses, the credit value in semester units is indicated following the course number.

Courses numbered 100 or above are applicable to the associate degrees. Courses numbered below 100 are developmental in nature. The student is urged to consult his or her counselor or specific college catalogs for information regarding transferability of courses.

Course prerequisites may only be waived by the appropriate division chairman.

All courses listed in this catalog may not be offered during the 1977-1978 year.

**Air Conditioning**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>Basic Electricity</td>
</tr>
<tr>
<td></td>
<td>6 Cr., 180 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Fundamentals of electricity as applied to domestic appliances, residential, commercial and industrial air conditioning.</td>
</tr>
<tr>
<td>401</td>
<td>Basic Units of Measurement and Measuring Devices</td>
</tr>
<tr>
<td></td>
<td>1 Cr., 30 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Calculating and measuring volts, ohms, current and watts.</td>
</tr>
<tr>
<td>402</td>
<td>Simple Schematics and Circuits</td>
</tr>
<tr>
<td></td>
<td>1 Cr., 30 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>How to construct and interpret simple schematic diagrams; construct simple circuits.</td>
</tr>
<tr>
<td>403</td>
<td>Circuit Components</td>
</tr>
<tr>
<td></td>
<td>1 Cr., 30 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Construction and diagnosis of circuits using switches, relays, solenoids, thermostats and protective devices.</td>
</tr>
<tr>
<td>404</td>
<td>Complex Schematics and Circuits</td>
</tr>
<tr>
<td></td>
<td>2 Cr., 60 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>How to interpret and construct complex schematics; construct complex circuits.</td>
</tr>
<tr>
<td>405</td>
<td>A. C. Motor Fundamentals</td>
</tr>
<tr>
<td></td>
<td>1 Cr., 30 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Commonly used A.C. motors, their starting and protective devices.</td>
</tr>
<tr>
<td>410</td>
<td>Basic Refrigeration</td>
</tr>
<tr>
<td></td>
<td>10 Cr., 300 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Principles of refrigeration as applied to domestic refrigeration, commercial refrigeration, residential and industrial air conditioning.</td>
</tr>
<tr>
<td>411</td>
<td>Elementary Thermodynamics and Physics</td>
</tr>
<tr>
<td></td>
<td>1 Cr., 30 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Principles of thermodynamics, physics and gas laws as applied in basic refrigeration.</td>
</tr>
<tr>
<td>412</td>
<td>Heat Transfer and Air Properties</td>
</tr>
<tr>
<td></td>
<td>1 Cr., 30 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Principles of heat flow, heat transfer, load calculations, plotting and interpreting the psychrometric chart.</td>
</tr>
<tr>
<td>413</td>
<td>Refrigerants and Refrigerant Properties</td>
</tr>
<tr>
<td></td>
<td>1 Cr., 30 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Types of refrigerant and properties of each type.</td>
</tr>
<tr>
<td>414</td>
<td>The Vapor Compression System and Accessories</td>
</tr>
<tr>
<td></td>
<td>3 Cr., 90 Contact Hrs.</td>
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<tr>
<td></td>
<td>The four processes, the major components of the vapor compression cycle and the relationship and function of each.</td>
</tr>
<tr>
<td>415</td>
<td>Piping and Fittings</td>
</tr>
<tr>
<td></td>
<td>1 Cr., 30 Contact Hrs.</td>
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<tr>
<td></td>
<td>Pipe sizing, construction and repair of piping; soldering and silver brazing.</td>
</tr>
<tr>
<td>416</td>
<td>Leak Detection, Leak Repair and Evacuation</td>
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<tr>
<td></td>
<td>1 Cr., 30 Contact Hrs.</td>
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<tr>
<td></td>
<td>Basic refrigeration leak detection methods, repair and repair materials and evacuation.</td>
</tr>
<tr>
<td>417</td>
<td>The Pressure-Enthalpy Diagram</td>
</tr>
<tr>
<td></td>
<td>1 Cr., 30 Contact Hrs.</td>
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<tr>
<td></td>
<td>Construction and interpretation of the pressure-enthalpy diagram.</td>
</tr>
</tbody>
</table>
418 Charging and Discharging
The System 1 Cr., 30 Contact Hrs.
Discharge and charge the refrigerant system; check the refrigerant charge.

420 Residential A/C Units — Cooling 12 Cr., 360 Contact Hrs.
Diagnose, service, repair and/or replace mechanical and electrical component parts of residential cooling systems; check system performances.

421 Properties of Air 1 Cr., 30 Contact Hrs.
How to measure air properties, plot and interpret psychrometric charts.

422 Heat Transfer and the Cooling Load 1 Cr., 30 Contact Hrs.
Identify heat sources and calculate the cooling load on the system.

423 The Refrigeration System — Residential Cooling 3 Cr., 90 Contact Hrs.
Check, service, repair and/or replace compressors, condensers, evaporators and metering devices.

424 Refrigerant Circuit Piping 1 Cr., 30 Contact Hrs.
Construct and repair refrigerant circuit piping; install driers and sight glasses.

425 Leak Detection, Leak Repair and Evacuation — Residential Cooling 1 Cr., 30 Contact Hrs.
Leak detection methods, repair materials, leak repairs and evacuation applied to residential cooling systems.

426 Introduction to Condensing Water Systems 1 Cr., 30 Contact Hrs.
Water towers, water treatment, circulating pumps and water cooled condensers.

427 Air Distribution — Residential Cooling 1 Cr., 30 Contact Hrs.
Check, service and adjust filters, flow patterns, velocity and volume.

428 System Performance and the Refrigerant Charge 1 Cr., 30 Contact Hrs.
Evaluate system performance compared to system load, check refrigerant charge, construct and interpret P-H diagram.

429 Complex Electrical Circuits 1 Cr., 30 Contact Hrs.
Diagnose, repair and/or replace components of the electrical system.

430 Residential A/C Units — Heating 8 Cr., 240 Contact Hrs.
Diagnose, service, repair and/or replace mechanical and electrical component parts of residential heating systems; check system performance.

431 Air Properties and Load Calculations 1 Cr., 30 Contact Hrs.
Calculate the heating load, construct and interpret psychrometric charts, humidity control.

432 The Warm Air Furnace — Gas 2 Cr., 60 Contact Hrs.
Check, service, repair and/or replace heat exchangers, burner assemblies, control and protective devices.

433 The Warm Air Furnace — Electric 1 Cr., 30 Contact Hrs.
Check, repair and/or replace electric strip heating assemblies, control and protective devices.
434 Air Distribution — Residential Heating
Check, service, adjust, repair and/or replace blower assembly components; check, service and adjust filters, flow patterns, velocity and volume.

435 The Heat Pump
Service and repair of the heat pump.

436 The Electrical Circuit and Schematics
Construct and interpret schematics; diagnose, repair and/or replace electrical circuit components.

437 Electric Motors and Starting Devices — Residential Heating
Diagnose, service, repair and/or replace electric motors and starting devices used in residential heating.

440 Residential Systems Design
How to make load calculations, select equipment and design air distribution systems.

441 Structural Blueprints
How to read and interpret structural blueprints.

442 Load Calculations — Heating
Calculate the heat load for the heating equipment.

443 Load Calculations — Cooling
Calculate the cooling load of structure, people, equipment, etc., for the cooling equipment.

444 Equipment Selection and Locating
Select and locate the heating equipment, cooling equipment and air handling equipment.

445 Air Distribution System Design
Design of supply and return duct systems, selection of registers and diffusers.

446 Residential Systems Design
How to make load calculations, select equipment and design air distribution systems.

447 Equipment Selection and Locating
Select and locate the heating equipment, cooling equipment and air handling equipment.

448 Commercial Refrigeration
How to check, service, adjust, repair and/or replace components of a commercial refrigeration system.

449 Multiple Systems
Check, service, repair and/or replace components of multiple systems.

450 Load Calculations — Commercial Refrigeration
Check and calculate system loads.

451 Refrigeration Systems — Commercial Refrigeration
Check, service, adjust, repair and/or replace components of the refrigeration circuit.

452 Piping and the Refrigerant Circuit — Commercial Refrigeration
Check, service, repair and/or replace piping and components of the refrigerant circuit.

453 Flow Control and Pressure Control Devices
Diagnose, adjust, repair and/or replace flow control and pressure control devices.

454 Moisture Problems and Defrost Systems
Check, adjust, repair and/or replace defrost devices; check air properties.

455 Load Calculations — Commercial Refrigeration
Check and calculate system loads.
457 The Refrigerant Charge and System Performance 1 Cr., 30 Contact Hrs.
Check and adjust system balance point; check system performance compared to system load; check and install the correct refrigerant charge.

458 Leak Detection, Leak Repair and Evacuation — Commercial Refrigeration 1 Cr., 30 Contact Hrs.
Locate and repair refrigerant leaks; evacuate for the refrigerant charge applied to commercial refrigeration system.

459 The Electrical Circuit and Control Devices — Commercial Refrigeration 1 Cr., 30 Contact Hrs.
Diagnose, adjust, repair and/or replace component parts of the electrical circuit and control devices for commercial refrigeration systems.

460 Industrial Air Conditioning 14 Cr., 420 Contact Hrs.
How to check, service, adjust, repair and/or replace components of an industrial air conditioning system.

461 Absorption Systems 1 Cr., 30 Contact Hrs.
Diagnose, service and repair components of the absorption system.

462 Vapor Compression Systems 3 Cr., 90 Contact Hrs.
Diagnose, service, adjust, repair and/or replace components of the vapor compression system.

463 Multiple Systems, Flow Control and Pressure Control Devices 1 Cr., 30 Contact Hrs.
Check, service, repair and/or replace components of multiple systems, flow control and pressure control devices.

464 Applied Psychrometries and System Performance 1 Cr., 30 Contact Hrs.
Check air properties, plot, interpret and apply information from the psychrometric chart; evaluate system performance, install the correct refrigerant charge.

465 Air Distribution — Industrial Air Conditioning 1 Cr., 30 Contact Hrs.
Check and adjust air distribution patterns, volume and velocity.

466 Leak Detection, Leak Repair and Evacuation — Industrial Air Conditioning 1 Cr., 30 Contact Hrs.
Locate and repair refrigerant leaks; evacuate for the refrigerant charge applied to industrial air conditioning systems.

467 Piping and the Refrigerant Circuits — Industrial Air Conditioning 1 Cr., 30 Contact Hrs.
Making piping repairs, condenser water piping and refrigerant circuit piping.

468 Electrical Circuits and Control Devices — Industrial Air Conditioning 1 Cr., 30 Contact Hrs.
Diagnose, adjust, repair and/or replace components of the electrical circuit and control devices for industrial air conditioning systems.

469 Pneumatic Control Systems 1 Cr., 30 Contact Hrs.
Check, service, adjust, repair and/or replace components of a pneumatic control system.

470 Boilers — Combustion Process 1 Cr., 30 Contact Hrs.
Check, service, repair and/or replace combustion components of boilers.
Anthropology

478 **Boiler Electrical Circuits**  
1 Cr., 30 Contact Hrs.  
Diagnose, adjust, repair and/or replace components of a boiler electrical circuit.

479 **Hydronic Systems**  
1 Cr., 30 Contact Hrs.  
Check, service, adjust, repair and/or replace components of a hydronic system.

703 (See Cooperative Work Experience)  
3 Cr.

704 (See Cooperative Work Experience)  
4 Cr.

713 (See Cooperative Work Experience)  
3 Cr.

714 (See Cooperative Work Experience)  
4 Cr.

803 (See Cooperative Work Experience)  
3 Cr.

804 (See Cooperative Work Experience)  
4 Cr.

813 (See Cooperative Work Experience)  
3 Cr.

814 (See Cooperative Work Experience)  
4 Cr.

**Anthropology**

100 **Introduction to Anthropology**  
3 Cr., 3 Lec.  
A survey of the origin of mankind involving the processes of physical and cultural evolution, ancient man, preliterate man today. Attention is centered on fossil evidence, physiology and family/group roles and status.

101 **Cultural Anthropology**  
3 Cr., 3 Lec.  
A survey of the cultures of the world with emphasis on those of North America. The concept of culture, social and political organization, language, religion and magic, elementary anthropological theory. (This course is offered on campus and may be offered via television).

Art

103 **Introduction to Art**  
1 Cr., 3 Lab.  
An introduction to materials and techniques of studio art for the non-major, involving basic design concepts and traditional media. Laboratory fee required.

104 **Art Appreciation**  
3 Cr., 3 Lec.  
Films, lectures, slides, and discussions on the theoretical, cultural and historical aspects of the visual arts. Attempts to develop visual and aesthetic awareness, thus relating art to the student as an individual.

105 **Survey of Art History**  
3 Cr., 3 Lec.  
This course covers the chronological sequence of art from the pre-historic through the Renaissance. Explores the cultural, geophysical and personal influences on art styles, offering the student a broader range of ideas which will enable him to relate the past to his own work and provide stimuli for his future works.

106 **Survey of Art History**  
3 Cr., 3 Lec.  
This course covers the chronological sequence of art from the Baroque through the present. Explores the cultural, geophysical and personal influences on art styles, offering the student a broader range of ideas which will enable him to relate the past to his own work and provide stimuli for his future works.
110 Design I 3 Cr., 2 Lec., 4 Lab.
A study of basic concepts of design using two-dimensional materials. Use of line, color, illusion of space or mass, texture, value, shape and size in composition. Required of all art and interior design majors. Open to all interested students.

111 Design II 3 Cr., 2 Lec., 4 Lab.
A study of basic concepts of design with three-dimensional materials, using mass, space, movement and texture. Required of all art majors. Open to all interested students. Laboratory fee required.

114 Drawing I 3 Cr., 2 Lec., 4 Lab.
A beginning course investigating a variety of media, techniques and subjects which explores perceptual and descriptive possibilities with consideration of drawing as a developmental process as well as an end in itself. Required of all art majors. Open to others who are interested.

115 Drawing II 3 Cr., 2 Lec., 4 Lab.
Prerequisite: Art 114. Expansion of Drawing I stressing the expressive and conceptual aspects of drawing including the human figure within a spatial environment. Required of all art majors. Open to others who are interested.

199 Art Seminar 1 Cr., 1 Lec.
A one hour weekly lecture and seminar where area artists, critics and art educators speak with students about the work exhibited in the gallery and discuss current art styles and movements, as well as the specifics of being artists in our contemporary society.

101 General Biology 4 Cr., 3 Lec., 3 Lab.
This course is a prerequisite for all higher level biology courses and should be taken in sequence. Recommended for science majors. Emphasis is structure and function at the cell, tissue and organ system levels of organization in both plants and animals. Laboratory fee required.

102 General Biology 4 Cr., 3 Lec., 3 Lab.
This course is a continuation of Biology 101. Emphasis is mendelian and molecular genetics, evolutionary mechanisms, plant and animal development and the energetics and regulation of ecological communities. Laboratory fee required.

115 Biological Science 4 Cr., 3 Lec., 3 Lab.
A presentation of selected topics in biological science for the non-science major including the cell concept, basic chemistry as it relates to biology, an introduction to genetics, cellular processes such as mitosis, meiosis, respiration, photosynthesis and plant and animal reproduction. Laboratory fee required. (This course is offered on campus and may be offered via television.)

116 Biological Science 4 Cr., 3 Lec., 3 Lab.
No prerequisite. A study of selected topics of biological science for the non-science major including all systems of the human body, disease, drug abuse and aging, evolution, ecology and man in relation to his environment. Laboratory fee required.

177 Blueprint Reading 2 Cr., 1 Lec., 3 Lab.
The description and explanation of engineering drawings is the content of the course. This includes multiview projection, sections, auxiliaries, bill of materials, symbols, notes, conventions, and standards. The skills of visualization, dimensioning, and sketching of machine parts are covered in the course.

(See Business 131, 132)

(See Mathematics 130)
105 Introduction to Business 3 Cr., 3 Lec.
Provides overall picture of business operation; includes analysis of specialized fields within business organization; identifies role of business in modern society. (This course is offered on campus and may be offered via television.)

131 Bookkeeping I 3 Cr., 3 Lec.
The fundamental principles of double-entry bookkeeping as applied to practical business situations. Emphasis is given to the following: financial statements, trial balances, work sheets, special journals, adjusting and closing entries. A practice set covering the entire business cycle will be completed.

132 Bookkeeping II 3 Cr., 3 Lec.
Prerequisite: Business 131. Attention will be given to accruals, bad debts, taxes, depreciation, controlling accounts, and business vouchers. Bookkeeping for partnerships and corporations will be introduced.

136 Principles of Management 3 Cr., 3 Lec.
A study of the process of management including the functions of planning, organizing, leading and controlling. Particular emphasis on policy formulation, decision making processes, operating problems, communications theory and motivation techniques.

137 Principles of Retailing 3 Cr., 3 Lec.
The operation of the retail system of distribution. The inter-relationship of consumer demand, inventory control, the buying sequence, personnel requirements, use of computer in retailing, store location and layout and credit policies.

143 Personal Finance 3 Cr., 3 Lec.
A study of everyday financial problems encountered in managing personal affairs. Includes financial planning, insurance, budgeting, use of credit, home ownership, savings, investment and tax problems. (This course can be offered on campus and via television.)

150 Management Training 4 Cr., 20 Lab.
Prerequisite: concurrent enrollment in approved mid-management program. Supervised employment in the student's chosen field. Intended to provide practical experience for students preparing for careers in business management. Business 150 will be offered the first semester.

151 Management Training 4 Cr., 20 Lab.
Prerequisite: concurrent enrollment in approved mid-management program. A continuation of Business 150. Business 151 will be offered the second semester.

153 Small Business Management 3 Cr., 3 Lec.
The student will be studying the fundamental approaches to planning, establishing and operating a small business. The day-to-day operation of the business and reporting procedures will be studied as well as exploring the concepts of general management.

154 Management Seminar: Role of Supervision 2 Cr., 2 Lec.
Prerequisites: concurrent enrollment in Business 150 and preliminary interview by mid-management faculty. Problem analysis and project development for students majoring in mid-management. Special emphasis is placed upon the development of management, goal setting and planning, leadership, communication and motivation as applied to the student's work experiences.

155 Management Seminar: Personnel Management 2 Cr., 2 Lec.
Prerequisites: Business 150, Business 154 and concurrent enrollment in Business 151. A study of the principles, policies, and practices relating to the personnel functions of business as applied to the student's work experiences.
159 **Beginning Shorthand** 4 Cr., 3 Lec., 2 Lab.  
**Prerequisite:** credit in or concurrent enrollment in Business 172 or one year of typing in high school. Introduction of fundamental principles of Gregg Shorthand, Diamond Jubilee Series. Includes development of ability to read, write and transcribe shorthand outlines. Development of knowledge of mechanics of English.

160 **Office Machines** 3 Cr., 3 Lec.  
Office machines is designed to provide the student with a skill in the operation of such machines as adding machines, printing calculators, electronic display calculators and electronic printing calculators. Emphasis is placed on developing the touch system for both speed and accuracy. A review of the fundamental mathematics needed for successful machine use in the typical office situation is included in the course.

162 **Office Procedures** 3 Cr., 3 Lec.  
**Prerequisite:** Credit in Business 173 or one year of typing in high school. Duties, responsibilities and personal qualifications of the office worker are emphasized. Units of work include filing, reprographics, mail, telephone, financial transactions and job applications.

165 **Introduction to Word Processing** 3 Cr., 3 Lec.  
**Prerequisite:** Business 172 or one year of high school typing. Provides an overall picture of word processing and its effect on traditional office operations. A study of word processing terminology and word processing centers which combine up-to-date equipment with streamlined paper handling procedures, training in the transcription and distribution of business communications. Reinforcement of English skills and English mechanics.

166 **Intermediate Shorthand** 4 Cr., 3 Lec., 2 Lab.  
**Prerequisites:** credit in Business 159 or one year of shorthand in high school, credit in Business 172 or one year of typing in high school. Application of the principles of Gregg Shorthand to develop the following: increased speed dictation, accuracy in typing from shorthand notes and emphasis on the beginning techniques of transcription skills. Included will be oral reading of shorthand outlines, speed building dictation and mailable copy. Special attention will be given to English fundamentals such as grammar, punctuation, etc.

167 **Legal Terminology & Transcription** 3 Cr., 3 Lec.  
**Prerequisite:** completion of intermediate typewriting or typing speed of 50 words per minute; completion of introduction to word processing. This course is designed to acquaint students with legal terminology, including correct spelling and use of legal terms and Latin words and phrases, and provides intensive practice in building speed and accuracy in the transcription of legal terms.

171 **Introduction to Supervision** 3 Cr., 3 Lec.  
**Prerequisite:** enrollment in technical/occupational program or consent of the instructor. A course studying today's supervisor and his problems. The course objective is to describe the practical concepts of modern-day, first line supervision. Emphasis is placed on discussing the supervisor's major functions: relations with others, motivation, communication, grievances, recruitment, counseling, and the fundamentals of cost accounting.

172 **Beginning Typing** 3 Cr., 2 Lec., 3 Lab.  
Fundamental techniques in typewriting are developed. The skills involved in typing manuscripts, business letters and tabulation are introduced. This course is for students with no previous training in typewriting.

174 **Intermediate Typing** 2 Cr., 1 Lec., 2 Lab.  
**Prerequisite:** credit in Business 172 or one year of typing in high school. Further development of techniques. Emphasis will be placed on problem solving, increasing speed and accuracy in typing business forms, correspondence and manuscripts.
201 Principles of Accounting I 3 Cr., 3 Lec.
Theory and practice of measuring and interpreting financial data for business units; study of problems of income measurement, such as depreciation, inventory valuation and credit losses; the operating cycle and the preparation of financial statements. (This course is offered on campus and may be offered via television.)

202 Principles of Accounting II 3 Cr., 3 Lec.
Prerequisite: Business 201. Accounting procedures and practices applicable to partnerships and corporations; the use of cost data, budgetary controls, analysis and interpretation of financial reports for use by creditors, investors and management.

266 Advanced Shorthand 4 Cr., 3 Lec., 2 Lab.
Prerequisites: credit in Business 166 or two years of shorthand in high school, credit in Business 174 or two years of typing in high school. Emphasis is on specialized speed building dictation, timed typewritten mailable transcription, additional vocabulary building and extensive production work capabilities. Continued development of this high level skill enables the student to meet the challenges presented in any office situation.

273 Advanced Typing 2 Cr., 1 Lec., 2 Lab.
Prerequisite: credit in Business 174 or two years of typing in high school. Decision making and timed production of all types of business material are emphasized. A continuation of skill development and a review of typing techniques are also stressed. This course will demand accuracy at advanced speeds.

400 Woodworking Tools and Materials 1 Cr., 30 Contact Hrs.
This course is designed to train the student in the proper use of the various types of woodworking tools and equipment. The machines used include the table saw, jointer, planer, radial arm saw, router, sander and various portable power tools. Proper safety procedures in the use of these woodworking machines are emphasized. Laboratory fee required.

410 Site Preparation and Foundations 4 Cr., 120 Contact Hrs.
This course will give the student the necessary knowledge and skills for laying out and constructing domestic building foundations, pier construction and placement, erecting concrete foundation forms, slab foundations and pouring concrete foundations. Laboratory fee required.

411 Use of Builders Level and Rod 1 Cr., 30 Contact Hrs.
Proper procedure in setting up a builder's level, reading the rod.

412 Batter Boards 1 Cr., 30 Contact Hrs.
Proper erection of batter boards, building lines and squaring a building; reading and interpreting plot plans.

413 Foundation Forming 2 Cr., 60 Contact Hrs.
Panelized forms, build in place forms, edge forms, footings, bracing, piers and form hardware. Terminology of form construction.

420 Interior Trim 5 Cr., 150 Contact Hrs.
This course provides training in the cutting, application, and finish of interior paneling, trim, fitting and hanging doors and in the installation of hardware and cabinets. The course also includes the preparation of surfaces for finish and the application of various types of wood finish. Laboratory fee required.

421 Paneling 2 Cr., 60 Contact Hrs.
Identify paneling, joint treatment wall preparation and finish.

422 Dry Wall 1 Cr., 30 Contact Hrs.
Selection, installation and treatment of gypsum wall board.

423 Door Hanging 1 Cr., 30 Contact Hrs.
Identification, casing and trim installation, hanging of different types of doors.
Window Installation 1 Cr., 30 Contact Hrs.
Trim and casing of various types of windows, wood, steel and aluminum.

Construction Cost Estimating 1 Cr., 30 Contact Hrs.
Prerequisite: Blueprint Reading 177. This course is designed to train the student to prepare cost estimates of residential and small commercial structures. Estimates will be made from blueprints and specifications in order to familiarize the student with the process of bid preparation.

Rough Framing 4 Cr., 120 Contact Hrs.
In this course, the student will learn how to erect various types of frame structures, including balloon and western framing. The course will include construction of floor systems, ceilings and walls. Proper safety procedures are emphasized. Laboratory fee required.

Floor and Sill Framing 2 Cr., 60 Contact Hrs.
Terminology, sill construction and installation. Install floor joist, floor openings, bridging and sub-flooring.

Wall and Partition Framing 2 Cr., 60 Contact Hrs.
Terminology, construct balloon and western frame layout, story poles, window and door frames, corners, connections.

Roof Framing 5 Cr., 150 Contact Hrs.
In this course, the student will gain the knowledge and develop the skills needed to lay rafters of all types, cut and erect rafters, apply sheathing and roof coverings. The course will cover the various roof styles and framing units, the determination of rafter length and material estimating. The proper and safe use of power tools used in roof framing is emphasized. Laboratory fee required.

Styles, Terminology and Methods 1 Cr., 30 Contact Hrs.
Identification of parts of the various roofs, roof styles and methods of roof layouts.

Gable Roofs 1 Cr., 30 Contact Hrs.
Layout, erection and bracing gable roofs, gable ends.

Hip Roofs 1 Cr., 30 Contact Hrs.
Layout and erection of gable roofs, hip rafters, hip jacks and valley rafters.

Mansard and Gambrel Roofs 1 Cr., 30 Contact Hrs.
Layout and erection of mansard and gambrel roofs.

Shed Roofs 1 Cr., 30 Contact Hrs.
Layout and erection of shed roofs.

Stair Building 3 Cr., 90 Contact Hrs.
In this course, the student will gain the knowledge and develop the skills needed in building stairs of all types. The course will include riser and tread calculations, material estimating, the layout and construction of a staircase. The course will also cover the construction of stair forms for concrete stairs. Laboratory fee required.

Stair Terminology and Calculations 1 Cr., 30 Contact Hrs.
Stair terminology, stair layout and calculation.

Stair Construction 2 Cr., 60 Contact Hrs.
Construction of various types of stairs, straight flight, landings, I-shaped and winders. Housed, semi-housed and open stairs.

Exterior Trim and Finish 2 Cr., 60 Contact Hrs.
In this course, the student will develop the skills related to exterior wall coverings and trim. The student will apply sheathing to outside walls and apply finish, siding and trim. Laboratory fee required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>471</td>
<td>Exterior Sheathing</td>
<td>1 Cr.</td>
<td>30 Contact Hrs.</td>
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<tr>
<td></td>
<td>Identification and application of diagonal, fiberboard panel sheathing and siding application.</td>
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<tr>
<td>472</td>
<td>Exterior Trim</td>
<td>1 Cr.</td>
<td>30 Contact Hrs.</td>
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<td>Gable trim, cornices, facia lookouts frieze. Identification and application of mouldings.</td>
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<td>480</td>
<td>Custom Cabinet Making</td>
<td>7 Cr.</td>
<td>210 Contact Hrs.</td>
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<td>This course covers the planning and construction of various types of custom cabinets and fixtures usually fabricated in residential construction. The student is required to construct, finish and install various types of cabinets.</td>
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<tr>
<td>481</td>
<td>Design and Construction of Modern Cabinets</td>
<td>1 Cr.</td>
<td>30 Contact Hrs.</td>
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<td></td>
<td>Identification of types of cabinets, cabinet parts, hardware and jointery used in cabinet construction.</td>
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<td>482</td>
<td>Cabinet Installation</td>
<td>2 Cr.</td>
<td>60 Contact Hrs.</td>
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<td>Installation and construction of modern cabinetry; proper installation of cabinets, scribing, leveling, door hanging and hardware.</td>
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<tr>
<td>483</td>
<td>Cabinet Construction</td>
<td>4 Cr.</td>
<td>120 Contact Hrs.</td>
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<td>Custom building of cabinets, framing, door and drawer construction.</td>
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<td>490</td>
<td>Commercial Building</td>
<td>11 Cr.</td>
<td>330 Contact Hrs.</td>
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<td>In this course, the student will develop the skills related to light commercial construction.</td>
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<tr>
<td>491</td>
<td>Terminology</td>
<td>1 Cr.</td>
<td>30 Contact Hrs.</td>
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<tr>
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<td>Construction procedures and types of light commercial construction.</td>
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<tr>
<td>492</td>
<td>Vertical Piers and Columns</td>
<td>2 Cr.</td>
<td>60 Contact Hrs.</td>
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<tr>
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<td>Terminology, form construction column corners, finishes and shapes.</td>
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<tr>
<td>493</td>
<td>Horizontal Beam Forms</td>
<td>3 Cr.</td>
<td>90 Contact Hrs.</td>
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<tr>
<td></td>
<td>Terminology, construction practices, domes, pretensioned slab forms.</td>
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<tr>
<td>494</td>
<td>Fireproof Encasement Forms</td>
<td>3 Cr.</td>
<td>90 Contact Hrs.</td>
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<tr>
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<td>Terminology, hardware construction of fireproof encasement forms.</td>
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<tr>
<td>495</td>
<td>Stair Forms</td>
<td>2 Cr.</td>
<td>60 Contact Hrs.</td>
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<tr>
<td></td>
<td>Commercial stair types and construction of various types of stair forms.</td>
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<tr>
<td>500</td>
<td>Building Construction Drafting</td>
<td>2 Cr.</td>
<td>60 Contact Hrs.</td>
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<tr>
<td></td>
<td>This course is designed to train the student in basic drafting practices and procedures related to the building construction industry. The course will include the use of instruments, sketching, dimensioning, and measurements from various views and drawing symbols. Laboratory fee required.</td>
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<tr>
<td>703</td>
<td>(See Cooperative Work Experience)</td>
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<td>704</td>
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<td>713</td>
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<tr>
<td>813</td>
<td>(See Cooperative Work Experience)</td>
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</table>
101 General Chemistry 4 Cr., 3 Lec., 3 Lab.
Prerequisite: Developmental Mathematics 093 or equivalent. Designed for science and science-related majors. The course includes the fundamental laws and theories dealing with the structure and interactions of matter and the use of these principles in understanding the properties of matter, chemical bonding, chemical reactions, the physical states of matter and changes of state. The fundamental principles are applied to the solution of quantitative problems relating to chemistry. Laboratory fee required.

102 General Chemistry 4 Cr., 3 Lec., 3 Lab.
Prerequisite: Chemistry 101. Designed for science and science-related majors, this course is a continuation of Chemistry 101. The fundamental concepts introduced previously, together with additional ones, are applied to a variety of topics, including solutions and colloids, chemical kinetics and equilibrium, electrochemistry and nuclear chemistry. Qualitative inorganic analysis is included in the laboratory work. Laboratory fee required.

115 General Chemistry 4 Cr., 3 Lec., 3 Lab.
Prerequisite: Developmental Mathematics 091 or equivalent. Designed for non-science majors, the course traces the development of theoretical concepts and the evolution of these concepts in explaining various observations and laws relating to chemical bonding reactions, states of matter, solution, electrochemistry and nuclear chemistry. The descriptive chemistry of some common elements and inorganic compounds is included. Laboratory fee required.

116 General Chemistry 4 Cr., 3 Lec., 3 Lab.
Prerequisite: Chemistry 115. Designed for non-science majors, this course covers organic chemistry and biochemistry. The important classes of organic compounds are surveyed with the concept of structure providing the central theme. The biochemistry section includes carbohydrates, proteins, lipids, chemistry of heredity, disease and therapy and plant biochemistry. Laboratory fee required.

100 College Learning Skills 1 Cr., 1 Lec.
The course will provide individualized study and practice in reading, study skills and/or composition. It is designed for students who wish to extend their learning skills for academic or career programs. May be repeated for a maximum of three (3) credits.

131 Applied Composition and Speech 3 Cr., 3 Lec.
The study of communications skills as a practical means of preparing for successful performance in the student's chosen vocation. Practice in writing letters, applications, resumes and short reports.

132 Applied Composition and Speech 3 Cr., 3 Lec.
Prerequisite: Communications 131 or consent of instructor. The study of communication processes with emphasis on written persuasion directly related to occupational training and work experience. Use of expository techniques in business letters and documented reports. Practice in oral communications.

175 Introduction to Computing Science 3 Cr., 3 Lec.
Provides a basic understanding of the computer, cultural impact, history of computers, vocabulary, flow charts, data representation, and an introduction to procedure-oriented languages with general applications.

(See Cooperative Work Experience)
Developmental Communications

095 Communication Skills 3 Cr., 3 Lec.
A course designed for the student who needs grammar, paragraph structure, reading skills, and/or oral communication to enhance his proficiency in language communications. Students will be tested and given prescribed work in one or a combination of the elements of study as the individual needs indicate.

Developmental Mathematics

090 Pre-Algebra Mathematics 3 Cr., 3 Lec.
This course is designed to develop an understanding of fundamental operations using whole numbers, fractions, decimals and percentages and to strengthen basic skills in mathematics. The course is planned primarily for students who need to review basic mathematical processes. It is the first step in the mathematics sequence and includes an introduction to algebra.

091 Elementary Algebra 3 Cr., 3 Lec.
Prerequisite: Developmental Mathematics 090 or equivalent. This course is designed to develop an understanding of first year algebra. It includes special products and factoring, fractions, equations, graphs, functions and an introduction to geometry.

093 Intermediate Algebra 3 Cr., 3 Lec.
Prerequisite: one year of high school algebra or Developmental Mathematics 091. Includes the terminology of sets, properties of real numbers, fundamental operations on polynomials and fractions, products, factoring, radicals and rational exponents. Also covered are solutions of linear, fractional, quadratic and systems of linear equations, coordinate systems and graphing.

Developmental Reading

Students can improve and refine their performance in the English sequence by enrolling in developmental reading courses. Developmental Reading 090, 091, 092 are valuable skill development courses for English 101. Reading 101 is especially helpful in English 102 and the sophomore level literature courses. See catalog description in reading for full course content.

090 Techniques of Reading/Learning 3 Cr., 3 Lec.
Developmental Reading 090 is designed to meet individual needs for proficiency in reading comprehension, vocabulary development, study skills and reading for success in academic areas and career advancement. It emphasizes learning how to learn and includes reading/learning experiences developed to strengthen the total educational background of each student. Developmental Reading 090 and Developmental Reading 091 are offered in a laboratory setting employing varied instructional methods.
Developmental Reading 091 is designed to meet individual needs for proficiency in reading comprehension, vocabulary development, study skills and reading for success in academic areas and career advancement. It emphasizes learning how to learn and includes reading/learning experiences developed to strengthen the total educational background of each student. Developmental Reading 090 and Developmental Reading 091 are offered in a laboratory setting employing varied instructional methods.

Students can improve their level of success in all courses requiring writing assignments by registering for developmental writing. These courses, offered for one to three hours credit, consider organization skills and research paper styles, as well as individual writing weaknesses.

Developmental Writing

Writing 090

Developmental Writing 090 emphasizes the diagnosis and correction of deficiencies in basic writing skills. Spelling, grammar, vocabulary improvement and principles of sentence and paragraph structure (as well as experience in organization for composition) are taught in a laboratory utilizing individualized instruction techniques.

Writing 091

Developmental Writing 091 is a sequel to Writing 090 and concentrates on the composition process; therefore, it is important to develop the student's skills of organization, transition and revision. His program of composition will vary according to his individual needs, which may include brief, simple forms as well as more complex critical and research writing.

Writing Lab 092

Developmental Writing Lab 092 is a workshop to facilitate writing success for course work and other individual interests. Students are given instruction and supervision in written assignments, including the research paper and in editing for mechanical effectiveness.

Diesel Engine Fundamentals and Component Repair

A study of the theory, principles, operating procedures and component repair of the modern high speed diesel engine. Emphasis will be placed on the proper use of special tools and precision measuring instruments. Laboratory fee required.

Rebuilding Cylinder Heads 401

A study of diesel engine cylinder heads including disassembly, inspection, servicing and reassembly.

Rebuilding Caterpillar Short Block 402

Disassembly, inspection, servicing and reassembly of a Caterpillar diesel engine short block.

Rebuilding Cummins Short Block 403

Disassembly, inspection, servicing and reassembly of a Cummins diesel engine short block.

Rebuilding Detroit Diesel Short Block 404

Disassembly, inspection, servicing and reassembly of a Detroit diesel short block.

Air Induction, Cooling and Lubrication Systems 405

Theory of operation, troubleshooting, and servicing diesel engine air induction, cooling and lubrication systems.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>410</td>
<td>Diesel Engine Fuel Systems</td>
<td>2 Cr.</td>
<td>60 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>A study of modern diesel engine fuel systems. Instruction is given in removal, inspection, installation and adjustment of fuel system components, such as injectors, pumps, filters, lines and governors.</td>
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<tr>
<td>420</td>
<td>Diesel Engine Tune-up and Operation</td>
<td>3 Cr.</td>
<td>90 Contact Hrs.</td>
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<tr>
<td></td>
<td>The principles and techniques of diagnosing, locating and correcting troubles encountered in diesel engine operation will be applied through the use of various types of testing equipment, including the engine dynamometer. Laboratory fee required.</td>
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</tr>
<tr>
<td>421</td>
<td>Caterpillar Engine Tune-up and Operation</td>
<td>1 Cr.</td>
<td>30 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Diagnosing, testing and correcting problems encountered in Caterpillar engine tune-up and operation.</td>
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<td></td>
</tr>
<tr>
<td>422</td>
<td>Cummins Engine Tune-up and Operation</td>
<td>1 Cr.</td>
<td>30 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Diagnosing, testing and correcting problems encountered in Cummins engine tune-up and operation.</td>
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<td></td>
</tr>
<tr>
<td>423</td>
<td>Detroit Diesel Engine Tune-up and Operation</td>
<td>1 Cr.</td>
<td>30 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Diagnosing, testing and correcting problems encountered in Detroit diesel engine tune-up and operation.</td>
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</tr>
<tr>
<td>430</td>
<td>Engine Overhaul</td>
<td>6 Cr.</td>
<td>180 Contact Hrs.</td>
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<tr>
<td></td>
<td>The complete overhaul of the diesel engine will be accomplished. The service manual will be used to provide the students with skills in locating data and in using service manuals. Laboratory fee required.</td>
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</tr>
<tr>
<td>431</td>
<td>Caterpillar Engine Rebuilding</td>
<td>2 Cr.</td>
<td>60 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Complete overhaul of the Caterpillar diesel engine including removing major components, inspection, servicing and reassembly.</td>
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</tr>
<tr>
<td>432</td>
<td>Cummins Engine Rebuilding</td>
<td>2 Cr.</td>
<td>60 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Complete overhaul of the Cummins diesel engine including removing major components, inspection, servicing and reassembly.</td>
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<tr>
<td>433</td>
<td>Detroit Diesel Engine Rebuilding</td>
<td>2 Cr.</td>
<td>60 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Complete overhaul of the Detroit diesel engine including removing major components, inspection, servicing and reassembly.</td>
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<td></td>
</tr>
<tr>
<td>440</td>
<td>Diesel Shop Practices</td>
<td>3 Cr.</td>
<td>90 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Designed to acquaint the student with oxyacetylene and arc welding and cutting. The use of power tools and machines that are used in the trade are introduced. Precision measuring tools and their uses will be included. Laboratory fee required.</td>
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<tr>
<td>441</td>
<td>Oxygen/Acetylene Welding</td>
<td>1 Cr.</td>
<td>30 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>The basic fundamentals of oxygen/acetylene welding.</td>
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</tr>
<tr>
<td>442</td>
<td>Arc Welding</td>
<td>1 Cr.</td>
<td>30 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>The basic fundamentals of arc welding.</td>
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<td></td>
</tr>
<tr>
<td>443</td>
<td>Diesel Mechanics</td>
<td>1 Cr.</td>
<td>30 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>Use and operation of power tools. The proper and safe use of power tools related to diesel mechanics. Includes the use of taps, dies and reamers.</td>
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</tr>
<tr>
<td>450</td>
<td>Vehicle Electrical Systems</td>
<td>2 Cr.</td>
<td>60 Contact Hrs.</td>
</tr>
<tr>
<td></td>
<td>A study of the vehicle electrical system with emphasis on the maintenance and repair of starting motors, alternators, regulators, switches, and wiring circuits. The student will receive instructions in the use of testing equipment. Laboratory fee required.</td>
<td></td>
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</tr>
</tbody>
</table>
451 Electricity: The Theory and Basic Circuitry 1 Cr., 30 Contact Hrs.
An introduction to the fundamentals of electricity and magnetism related to diesel equipment.

452 Starting, Charging, Lighting and Accessory Circuits 1 Cr., 30 Contact Hrs.
Maintenance and repair of starting motors, alternators, regulators, switches and wiring circuits related to diesel equipment.

460 Drive Train and Brakes 14 Cr., 420 Contact Hrs.
A study of the power train in diesel powered equipment, including inspection and repair of clutches, torque converters, transmissions, axles and drive lines. Air brake systems, component parts, troubleshooting and servicing are covered. Laboratory fee required.

461 Five Speed Standard Transmission 1 Cr., 30 Contact Hrs.
Inspection and repair of five speed standard transmissions used on diesel equipment.

462 Fuller RT-910 Standard Transmission 2 Cr., 60 Contact Hrs.
Inspection and repair of the Fuller RT-910 standard transmission.

463 Differentials 1 Cr., 30 Contact Hrs.
Inspection and repair of differentials used on diesel equipment.

464 Allison Automatic Transmission 2 Cr., 60 Contact Hrs.
Inspection and repair of the Allison automatic transmission.

465 Responder Automatic Transmission 2 Cr., 60 Contact Hrs.
Inspection and repair of the Responder automatic transmission.

466 Caterpillar Power Shift Transmission 2 Cr., 60 Contact Hrs.
Inspection and repair of the Caterpillar power shift transmission.

467 Air Brake Systems 2 Cr., 60 Contact Hrs.
Inspection and repair of air brake systems used on diesel equipment.

468 Torque Converters 1 Cr., 30 Contact Hrs.
Inspection and repair of torque converters used on diesel equipment.

469 Clutches 1 Cr., 30 Contact Hrs.
Inspection and repair of clutches used on diesel equipment.

703 (See Cooperative Work Experience) 3 Cr.

704 (See Cooperative Work Experience) 4 Cr.

713 (See Cooperative Work Experience) 3 Cr.

714 (See Cooperative Work Experience) 4 Cr.

803 (See Cooperative Work Experience) 3 Cr.

804 (See Cooperative Work Experience) 4 Cr.

813 (See Cooperative Work Experience) 3 Cr.

814 (See Cooperative Work Experience) 4 Cr.

901 1 Cr.

902 2 Cr.

Directed Studies
**Earth Science**

**117 Earth Science**

3 Cr., 3 Lec., 3 Lab.

This course encompasses the interaction of the earth sciences and man's physical world. Geology, astronomy, meteorology and space science are emphasized through the application of selected principles and concepts of the applied sciences. The course is directed toward the non-science major. Laboratory fee required. (This course is offered on campus and may be offered via television.)

**Ecology**

**291 Man and His Environment II**

3 Cr., 3 Lec.

A course designed to increase environmental awareness and knowledge. Areas of study include pollution, erosion, land use, energy resource depletion, overpopulation and the effects of unguided technological development. Through documentaries and interviews with experts, an emphasis is placed on proper planning of societal and individual action in order to protect the natural environment. (This course may be offered via television.)

**Economics**

**201 Principles of Economics I**

3 Cr., 3 Lec.

The fundamental principles of macroeconomics. Economic organization, national income determination, money and banking, monetary and fiscal policy, economic fluctuations and growth. Sophomore standing recommended. (This course is offered on campus and may be offered via television.)

**202 Principles of Economics II**

3 Cr., 3 Lec.

Prerequisite: Economics 201 or the consent of the instructor. The fundamental principles of microeconomics. Theory of demand, supply and price of factors; income distribution; theory of the firm. Emphasis also on international economics and contemporary economic problems.

**Electricity**

**400 DC and AC Circuits**

4 Cr., 120 Contact Hrs.

In this course the student will gain the knowledge and develop the skills needed to work with direct and alternating current circuits. The course will cover Ohm's Law, series, parallel and combination circuits and instruments. It will also include reactance, impedance, phase angle, voltage, current and power measurements in single-phase and three-phase circuits. Laboratory fee required.

**401 DC Circuits and Measurements**

1 Cr., 30 Contact Hrs.

Calculate and measure voltage, current and resistance in series, parallel and combination circuits. Proper operation and use of test instruments.

**402 Basic AC Circuits**

2 Cr., 60 Contact Hrs.

Reactance, impedance, phase angle, voltage, current and power calculations and measurements.

**403 Three-Phase Circuits**

1 Cr., 30 Contact Hrs.

Calculations and measurements related to three-phase wye and delta circuits.

**410 Residential Wiring Practices**

9 Cr., 270 Contact Hrs.

In this course, the student will gain the knowledge and develop the skills needed in residential wiring including wire selection, splicing of wires, switches and receptacles. Wiring practices related to special appliance circuits, electric heating, central air conditioning, grounding practices and service entrance are also included. Laboratory fee required.
411 Residential Codes 1 Cr., 30 Contact Hrs.
A study of the national electric code and local ordinances related to residential wiring.

412 General Wiring Practices 4 Cr., 120 Contact Hrs.
Wiring practices used in residential wiring such as wire selection, splicing of wires, switches, receptacles and lighting circuits.

413 Appliance Circuits 3 Cr., 90 Contact Hrs.
Wiring practices used in appliance circuits, electric heating, central air conditioning, grounding practices and service entrances.

414 Low Voltage Circuits 1 Cr., 30 Contact Hrs.
Low voltage residential circuits including bells, chimes and alarms.

420 Commercial Wiring Practices 8 Cr., 240 Contact Hrs.
In this course, the student will gain the knowledge and develop the skills needed in commercial wiring. The course will include electric code, conduit work, power circuits and problems encountered in electrical construction work. Laboratory fee required.

421 Commercial Codes 1 Cr., 30 Contact Hrs.
A study of the national electric code and local ordinances related to commercial wiring.

422 Commercial Wiring 4 Cr., 120 Contact Hrs.
Commercial wiring practices including materials, conduit work, wire pulling and circuit layouts.

423 Power Circuits 3 Cr., 90 Contact Hrs.
Commercial wiring practices related to service entrance, breaker panels, commercial appliances and problems encountered in electrical construction work.

430 Electrical Machines 3 Cr., 90 Contact Hrs.
In this course, the student will develop the skills needed to work with the various types of electrical machines used in home and industry. The course will cover DC motors and generators, single-phase and three-phase motors. Laboratory fee required.

431 Motor Codes 1 Cr., 30 Contact Hrs.
A study of the national electric code and local ordinances related to motors.

432 DC and Single-Phase Machines 1 Cr., 30 Contact Hrs.
Characteristics, connection and testing of DC motors and generators and single-phase motors.

433 Three-Phase Motors 1 Cr., 30 Contact Hrs.
Characteristics, connection and testing of three-phase motors.

440 Motor Controls 4 Cr., 120 Contact Hrs.
In this course, the student will connect, test and troubleshoot the various types of control circuits used for single-phase and three-phase motors. The course will include manual, automatic and solid-state controls. Laboratory fee required.

441 Control Circuit Diagrams 1 Cr., 30 Contact Hrs.
Terminology, symbols and the development of control circuit diagrams.

442 Magnetic Starting and Overload Protection 1 Cr., 30 Contact Hrs.
Individual and multiple start-stop stations with overload protection.

443 Jogging, Reversing and Sequencing 1 Cr., 30 Contact Hrs.
Connecting and testing, jogging and reversing motor controls and sequencing circuits.
Solid State Controls 1 Cr., 30 Contact Hrs.
Connecting and testing transistor relay and SCR motor controllers.

Transformers 3 Cr., 90 Contact Hrs.
This course covers a study of transformers used in distribution systems and industry. Single-phase and three-phase transformer types, connections, ratings, polarity and testing are included. Laboratory fee required.

Transformer Types and Testing 1 Cr., 30 Contact Hrs.
Basic transformer fundamentals, types of transformers and testing procedures.

Distribution Transformers 2 Cr., 60 Contact Hrs.
The selection, connection and testing of single-phase and three-phase distribution transformers.

Job Layout and Estimating 4 Cr., 120 Contact Hrs.
In this course, the student will learn how to plan residential and commercial wiring jobs. The course includes the use of blueprints and specifications in job planning, bids, material estimating and pricing. The use of electrical trade service publications is emphasized.

Residential Planning 2 Cr., 60 Contact Hrs.
Plan the placing of receptacles, switches, lights and appliances; service entrance, material estimating and pricing.

Commercial Planning 2 Cr., 60 Contact Hrs.
Plan the wiring job for a church, school or other commercial building working from blueprints and specification books.

Electrical Orientation 1 Cr., 30 Contact Hrs.
In this course, the student will be introduced to the electrical industry and the college program. The student will also be introduced to the tools and materials used in the trade.

Compositional and Expository Reading 3 Cr., 3 Lec.
A course designed to develop the student's skills in writing and in critical analysis of prose. (This course is offered on campus and may be offered via television.)

Composition and Literature 3 Cr., 3 Lec.
Prerequisite: English 101. Writing and reading activities in poetry, drama, the short story and the novel. Designed to increase the student's understanding.
and enjoyment of good literature. (This course is offered on campus and may be offered via television.)

101 **Beginning French** 4 Cr., 3 Lec., 2 Lab.
Essentials of grammar, easy idiomatic prose, stress on pronunciation, comprehension and oral expression. Laboratory fee required.

102 **Beginning French** 4 Cr., 3 Lec., 2 Lab.
Prerequisite: French 101 or equivalent. Continuation of French 101 with emphasis on idiomatic language and complicated syntax. Laboratory fee required.

101 **Physical Geography** 3 Cr., 3 Lec.
A survey of the physical makeup of the earth: weather and climate, topography, plant and animal life, land and sea. Attention is directed toward the earth in space, use of maps and charts and place geography.

102 **Economic Geography** 3 Cr., 3 Lec.
A study of the relation of man to his environment and his utilization of natural resources, dealing with problems of production, manufacture and distribution of goods throughout the world. The aspects of primitive subsistence and degrees of commercialism are considered.

103 **Cultural Geography** 3 Cr., 3 Lec.
Development of regional variations of culture, including the distribution of races, religions, languages and aspects of material culture, with emphasis on origins and diffusion.

101 **Physical Geology** 4 Cr., 3 Lec., 3 Lab.
Study of earth materials and processes for science and non-science majors. Includes introduction to geochemistry, geophysics, examination of the earth's interior, magnetism, setting in space, minerals, rocks, structure and geologic processes. Laboratory fee required.

102 **Historical Geology** 4 Cr., 3 Lec., 3 Lab.
Prerequisite: Geology 101 or permission of the instructor. Study of earth materials and processes within a time perspective. For science and non-science majors. Utilizes fossils, geologic maps and field studies to interpret geologic history. Laboratory fee required.

201 **American Government** 3 Cr., 3 Lec.
Prerequisite: Sophomore standing recommended. An introduction to the study of political science; origin and development of constitutional democracy (United States and Texas); federalism and intergovernmental relations; local government; parties, politics and political behavior. Satisfies requirements for Texas State Teacher’s Certification. (This course is offered on campus and may be offered via television.)

202 **American Government** 3 Cr., 3 Lec.
Prerequisites: Government 201 and sophomore standing recommended. A study of the United States and Texas legislative process, the executive and the bureau structure, the judicial process, civil rights and liberties, domestic policies. Other topics include foreign relations and national defense. Satisfies requirements for Texas State Teacher’s Certification.

101 **History of the United States** 3 Cr., 3 Lec.
A general presentation of United States history, commencing with the European background and first discoveries. The pattern of exploration, settlement and development of institutions is followed throughout the Colonial period and the early national experience to 1877. (This course is offered on campus and may be offered via television.)
Human Development

102 History of the United States  
3 Cr., 3 Lec.  
*Prerequisite: History 101 recommended.* A survey of the unfolding of United States history from the Reconstruction Era to the present day. The study includes social, economic and political aspects of American life and follows the development of the United States as a world power.

Humanities

101 Introduction to the Humanities  
3 Cr., 3 Lec.  
Through an examination of interrelated examples of man’s creative achievements, the humanities course attempts to enlarge awareness and increase understanding of the nature of man and the values of human life. (This course is offered on campus and may be offered via television.)

102 Advanced Humanities  
3 Cr., 3 Lec.  
*Prerequisite: Humanities 101 and/or permission of instructor.* Humanities 102 is an in-depth and critical clarification of human value choices through the context of the humanities. It is designed to explore universal concerns such as man’s relationship to himself and to others, the search for meaning, and man as a loving, believing and hating being as revealed by artists, playwrights, filmmakers, musicians, dancers, philosophers and theologians. The intent is to provide a sense of the commonality of human experience across cultures and civilizations and an understanding of the premises on which value choices are made.

Journalism

101 Introduction to Mass Communications  
3 Cr., 3 Lec.  
A survey course designed to provide students with a panoramic view of the field of mass communications and an understanding of the role of mass media in modern society. Not restricted to journalism majors.
102 News Gathering and Writing 3 Cr., 2 Lec., 3 Lab.
Prerequisite: Typing ability. Beginning reporting, study of types of news, leads, body treatment of story, feature in lead, facts, background and practice in writing straight news story. Required for all journalism majors.

103 News Gathering and Writing 3 Cr., 2 Lec., 3 Lab.
Prerequisite: Journalism 102. Required for all journalism majors. A continuation of Journalism 102. The writing of more complex types of news stories. Specialized writing in the fields of sports, police news, markets, finance, society, amusements, government and news of interest to women. Additional laboratory work on the student newspaper.

104 Student Publications 1 Cr., 3 Lab.
Individual staff assignments on the student newspaper in one of the following journalistic fields: writing, advertising, photography, cartooning, editing. Students are required to work at prescribed periods under supervision and must attend staff meetings. This course may not be taken for credit concurrently with Journalism 102 or 103. Credit limited to one unit per semester. May be repeated for a total of three units credit.

105 Student Publications 1 Cr., 3 Lab.
Individual staff assignments on the student newspaper in one of the following journalistic fields: writing, advertising, photography, cartooning, editing. Students are required to work at prescribed periods under supervision and must attend staff meetings. This course may not be taken for credit concurrently with Journalism 102 or 103. Credit limited to one unit per semester.

101 College Algebra 3 Cr., 3 Lec.
Prerequisite: two years of high school algebra or Developmental Mathematics 093. A study of functions and relations, absolute values, variation, quadratic equations, complex numbers, functions of two variables, systems of equations and inequalities, elementary aspects of the theory of equations, progressions, the binomial theorem and algebraic proof.

102 Plane Trigonometry 3 Cr., 3 Lec.
Prerequisite: Mathematics 101 or equivalent. A study of angular measure, functions of angles, identities, solution of triangles, equations, inverse trigonometric functions, logarithms and complex numbers.

107 Fundamentals of Computing 3 Cr., 3 Lec.
Prerequisite: two years high school algebra or Developmental Mathematics 093. An introductory course designed primarily for students desiring credit toward a minor or major in computer science. The content of this course includes a study of algorithms and an introduction to a procedure-oriented language with general applications.

111 Mathematics for Business and Economics I 3 Cr., 3 Lec.
Prerequisite: two years of high school algebra or Developmental Mathematics 093. A study of equations, inequalities, matrices, linear programming, and linear, quadratic, polynomial, rational, exponential and logarithmic functions. Applications to business and economic problems are emphasized.

112 Mathematics for Business and Economics II 3 Cr., 3 Lec.
Prerequisite: Mathematics 111. Study of sequences and limits, differential calculus, integral calculus, optimization and appropriate applications.

115 College Mathematics I 3 Cr., 3 Lec.
Prerequisites: one year of high school algebra and one year of high school geometry or two years of high school algebra or Developmental Mathematics 093. A course designed for liberal arts students which includes the study of logic, mathematical patterns, mathematical recreations, systems of numeration, mathematical systems, sets and statements and sets of numbers. Historical aspects of the above topics will also be emphasized.
116 College Mathematics II  
3 Cr., 3 Lec.
Prerequisite: Mathematics 115. A course designed for liberal arts students which includes the study of algebra, linear programming, permutations, combinations, probability and geometry. Historical aspects of the above topics will also be emphasized.

121 Analytic Geometry  
3 Cr., 3 Lec.
Prerequisite: Mathematics 102 or equivalent. A study of the real numbers, distance, the straight line, conics, transformation of coordinates, polar coordinates, parametric equations and three-dimensional space.

126 Introductory Calculus  
5 Cr., 5 Lec.
Prerequisite: Mathematics 105, 106, 121 or equivalent. A study of limits, continuity, derivatives, slopes, tangents, chain rule, implicit differentiation, higher derivatives, differentials, integration, applications of differential and integral calculus and trigonometric and inverse trigonometric functions.

130 Business Mathematics  
3 Cr., 3 Lec.
Prerequisite: one year of high school algebra or Developmental Mathematics 091 or the equivalent. A study of simple and compound interest, bank discount, payrolls, taxes, insurance, markup and markdown, corporate securities, depreciation and purchase discounts. This course is intended primarily for specialized occupational programs.

195 Technical Mathematics  
3 Cr., 3 Lec.
Prerequisite: Developmental Mathematics 091 or the equivalent. A course designed for technical students covering a general review of arithmetic; a treatment of the basic concepts and the fundamental facts of plane and solid geometry, computational techniques and devices, units and dimensions, a treatment of the terminology and concepts of elementary algebra, functions, coordinate systems, simultaneous equations, stated problems, determinants, progressions and the binomial theorem.

196 Technical Mathematics  
3 Cr., 3 Lec.
Prerequisite: Mathematics 195. A course for technical students which includes a study of the following: the trigonometric functions of angles, trigonometric identities, inverse trigonometric functions, trigonometric equations, complex numbers, logarithms, vectors and the solution of triangles.

Music

101 Freshman Theory  
4 Cr., 3 Lec., 3 Lab.
Development and cultivation of musicianship skills, especially in the areas of tonal and rhythmic perception and articulation. Presentation of the essential elements of music; introduction to sight-singing, keyboard, and notation.

102 Freshman Theory  
4 Cr., 3 Lec., 3 Lab.
Prerequisite: Music 101 or consent of instructor. Introduction to part-writing and harmonization with triads and their inversions; classification of chords; seventh chords, sight-singing, dictation and keyboard harmony.

104 Music Appreciation  
3 Cr., 3 Lec.
A concise survey of the basic elements of music and their application in the music literature of Western civilization, particularly from the Baroque to the present. Relevant cultural influences upon the music of each era are observed.

110 Music Literature  
3 Cr., 3 Lec.
A course dealing with the characteristics of sound, the elements of music, performance media and musical texture as seen in the music of recognized composers in the major periods of music history. Special emphasis is given to the music of the late Gothic, Renaissance and Baroque eras.

111 Music Literature  
3 Cr., 3 Lec.
Prerequisite: Music 110. A continuation of the studies introduced in Music 110. A study of the compositional procedures and forms employed by the creators of music. Attention is focused upon the music of the Classical, Romantic and Modern periods.
113 Foundations in Music I 3 Cr., 3 Lec.
Emphasis upon participation and the necessary skills for satisfactory performance in singing, playing an instrument, listening, creating rhythmic responses. Development of increasing ability to manage notation (music reading).

114 Foundations in Music II 3 Cr., 3 Lec.
Prerequisite: Music 113. Designed to help prepare students with limited music training for Music 101 or to further their general music understanding. Course emphasis will include rhythmic and melodic training, understanding of basic chord functions, melody, textures and basic analysis of music.

117 Piano Class I 1 Cr., 2 Lab.
Class instruction in the areas of basic musicianship and piano skills designed primarily for those with no knowledge in piano skills. Open to all students. May be repeated for credit.

118 Piano Class II 1 Cr., 2 Lab.
Includes techniques, skills, harmonization, transposition, improvisation, accompanying, sightreading and performing various styles of repertoire. Open to all students. May be repeated for credit.

119 Guitar Class I 1 Cr., 2 Lab.
Class instruction covering the basics of guitar skill, designed primarily for those with limited knowledge in the reading of music or playing the guitar. Open to all students. May be repeated for credit.

120 Guitar Class II 1 Cr., 2 Lab.
Prerequisite: Music 119 or the equivalent. A continuation of the skills introduced in Music 119 with emphasis on perfecting classical guitar techniques and music reading skills. May be repeated for credit.

Subject to enrollment, students may receive private instruction in the following courses: piano, organ, voice, violin, viola, cello, double bass, flute, oboe, clarinet, bassoon, saxophone, trumpet, French horn, trombone, baritone, tuba, percussion, guitar, electric bass and drum set. Private music may be repeated for credit.

121-143 Applied Music — Minor 1 Cr., 1 Lec.
Private instruction in the student's secondary area. One half hour lesson a week. Open to students registered in music theory, ensembles and other music major or minor courses. Fee required. Private music may be repeated for credit.

150 Chorus 1 Cr., 3 Lab.
Prerequisite: Consent of instructor. Open to all students of the college, the chorus studies and performs a wide variety of music representing the literature of the great eras of music history. May be repeated for credit.

155 Vocal Ensemble 1 Cr., 3 Lab.
A select group for mixed voices concentrating upon excellence of performance. Membership is open to any student by audition, who, in the opinion of the director, possesses special interest and skills in performance of advanced choral literature. May be repeated for credit.

160 Band 1 Cr., 3 Lab.
Prerequisite: non-wind instrument majors, consent of the instructor. The band studies and performs a wide variety of music in all areas of band literature. Required of all wind instrument majors. May be repeated for credit.

185 Stage Band 1 Cr., 3 Lab.
Prerequisite: consent of instructor. The stage band studies and performs a wide variety of music with emphasis on the jazz-oriented big-band styles of the 1960's. May be repeated for credit.
199 Recital
One period per week designed to allow students of private lessons an opportunity to perform before an audience. Required for all music majors and open to all other students. Credit for this course does not apply to the associate degree. May be repeated for credit.

Office Machines
(See Business 160)

Philosophy

102 Introduction to Philosophy
A survey course designed to acquaint the student with some of the fundamental problems in philosophy and with methods used to deal with them. Some principal views, both ancient and modern, are examined as possible solutions.

105 Logic
An analysis of the principles of logical thinking. An effort is made to apply logic's methods and tools to real life situations. Fallacies, definitions, analogies, syllogisms, Venn diagrams and other topics are discussed.

Photography

110 Introduction to Photography and Photojournalism
Introduction to photography and photojournalism. The general mechanics of camera lenses and shutters, general characteristics of the photographic films, papers and chemicals. Proper photographic darkroom procedures including enlarging, processing, contact printing and exposing of photographic films and papers. Study of artificial lighting. Laboratory fee required.

111 Advanced Photography and Photojournalism
Advanced photography and photojournalism. Utilization of everything taught in 110, with emphasis on refining techniques. Special emphasis on photographic communication. Laboratory fee required.

Physical Education Activity Courses

One of the main objectives of the physical education division is to provide the opportunity for each student to become skilled in at least one physical activity which will prepare him for personal enjoyment of leisure time. Students are urged to take advantage of the program by registering for a physical education activity course each semester.

100 Lifetime Sports Activities
Students are provided an opportunity for participation and instruction in various lifetime sports. Selection may be made from archery, badminton, bowling, golf, handball, racquetball, softball, swimming, tennis and other sports. Activities may be offered singularly or in combinations. Instruction shall be presented at the beginner and advanced-beginner levels. The course is designed for male and female students and may be repeated for credit providing students select different activities. Laboratory fee required.

104 Touch Football/Soccer
A course designed for those students desiring instruction and skill development in touch football and soccer. Uniform required. Laboratory fee required.

112 Softball and Soccer
Designed to provide the student an opportunity for instruction and participation in softball and soccer. Uniform required. Laboratory fee required.

115 Physical Performance Lab
This course is designed to diagnose and measure the student's physical condition and prescribe a program of exercise to carry with him through life. Much of the course work will be carried on in the physical performance laboratory. Co-educational. May be repeated for credit. Uniform required. Laboratory fee required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Lab Credits</th>
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<tbody>
<tr>
<td>116</td>
<td>Intramural Athletics</td>
<td>1 Cr.</td>
<td>2 Lab.</td>
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<td></td>
<td>A co-educational activity course designed to offer intramural competition in a variety of co-educational activities. May be repeated for credit. Uniform required. Laboratory fee required.</td>
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<tr>
<td>117</td>
<td>Beginning Archery</td>
<td>1 Cr.</td>
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<td>Co-educational course in beginning archery. Equipment furnished. No uniform required. Laboratory fee required.</td>
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<td>118</td>
<td>Beginning Golf</td>
<td>1 Cr.</td>
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<td>A co-educational course in beginning golf. Equipment furnished. No uniform required. Laboratory fee required.</td>
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<td>119</td>
<td>Beginning Tennis</td>
<td>1 Cr.</td>
<td>2 Lab.</td>
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<td>A co-educational course designed for the beginner.</td>
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<tr>
<td>120</td>
<td>Beginning Bowling</td>
<td>1 Cr.</td>
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<td>A co-educational course in beginning bowling. Equipment furnished. No uniform required. Laboratory fee required.</td>
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<tr>
<td>122</td>
<td>Beginning Gymnastics</td>
<td>1 Cr.</td>
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<td>A co-educational course in beginning gymnastics, emphasizing basic skills in tumbling and in the various apparatus events. Uniform required. Laboratory fee required.</td>
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<tr>
<td>123</td>
<td>Beginning Swimming</td>
<td>1 Cr.</td>
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<td>A co-educational course designed to teach a non-swimmer to survive in the water. Uniform required. Laboratory fee required.</td>
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<td>125</td>
<td>Conditioning Exercise</td>
<td>1 Cr.</td>
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<td>Enables the student to develop an understanding of exercise and its effect on the body and improve physical fitness through a variety of conditioning activities. Uniform required. Laboratory fee required.</td>
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<tr>
<td>127</td>
<td>Basketball and Volleyball</td>
<td>1 Cr.</td>
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<td>Techniques, rules and strategy of the game will be taught and the emphasis will be on playing the game. Uniform required. Laboratory fee required.</td>
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<td>131</td>
<td>Weight Training and Conditioning</td>
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<td>A course designed for those students who desire instruction and participation in weight training and conditioning techniques. May be repeated for credit. Uniform required. Laboratory fee required.</td>
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<td>134</td>
<td>Outdoor Education</td>
<td>1 Cr.</td>
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<td>A co-educational course designed to provide students with the opportunity to gain knowledge and skills in outdoor education and camping activities through planned and incidental experiences. Including a weekend camp-out. No uniform required. Laboratory fee required.</td>
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<td>101</td>
<td>Fundamentals of Health</td>
<td>3 Cr.</td>
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<td>A study of personal and community health. Emphasis placed on causative factors of mental and physical health and the means of disease transmission and prevention. For majors, minors, and students with specific interest.</td>
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<td>110</td>
<td>Community Recreation</td>
<td>3 Cr.</td>
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<td>Principles, organization and the function of recreation in American society. Designed for students planning a major or minor in health, physical education or recreation.</td>
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<td>144</td>
<td>Introduction to Physical Education</td>
<td>3 Cr.</td>
<td>3 Lec.</td>
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<td>Designed for professional orientation in physical education, health and recreation. Brief history, philosophy and modern trends of physical education, teacher qualification, vocational opportunities, expected competencies, and skill testing comprise the contents of the course. For students majoring in physical education.</td>
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</tbody>
</table>
147 Sports Officiating I 3 Cr., 2 Lec., 2 Officiating
This course is especially designed for those students who would like to choose sports officiating for an avocation and/or to increase knowledge in and appreciation of sports. Sports covered in this course will be football and basketball. As part of the course requirement student will be expected to officiate intramural games.

148 Sports Officiating II 3 Cr., 2 Lec., 2 Officiating
This course is especially designed for those students who would like to choose sports officiating for an avocation and/or to increase knowledge in and appreciation of sports. Sports covered in this course will be softball, track and field, and baseball.

257 Standard and Advanced First Aid 3 Cr., 3 Lec.
Theory and practice in the standard and advanced courses of the American National Red Cross in first aid safety.

Physical Science

118 Physical Science 4 Cr., 3 Lec., 2 Lab.
A study of the basic principles and concepts of physics, chemistry and nuclear science. The course relates these basic sciences to man's physical world at an introductory level. This course is intended primarily for the non-science major. Laboratory fee required.

119 Physical Science 4 Cr., 3 Lec., 2 Lab.
This course encompasses the interaction of the earth sciences and man's physical world. Geology, astronomy, meteorology and space science are emphasized through the application of selected principles and concepts of the applied sciences. The course is directed toward the non-science major. Laboratory fee required.

Physics

111 Introductory General Physics 4 Cr., 3 Lec., 3 Lab.
Prerequisite: Two years high school algebra, including trigonometry or equivalent. The first semester of a two semester course designed for pre-dental, biology, pre-medical, pre-pharmacy, and pre-architecture majors and other students who require a two-semester technical course in physics. This course includes a study of mechanics and heat. Laboratory includes one hour problem session. Laboratory fee required.

112 Introductory General Physics 4 Cr., 3 Lec., 3 Lab.
Prerequisite: Physics 111. A continuation of Physics 111 which includes the study of electricity, magnetism, light, and sound. Laboratory includes one hour problem session. Laboratory fee required.

115 Physics for Liberal Arts 4 Cr., 3 Lec., 3 Lab.
An introduction to the various areas of physics as they relate to the world in which we live, accomplished through the study of selected topics including mechanics, thermodynamics, and acoustics. This course is intended primarily for the non-science major. Laboratory includes a one hour problem session. Laboratory fee required.

116 Physics for Liberal Arts 4 Cr., 3 Lec., 3 Lab.
Prerequisite: Physics 115. A continuation of Physics 115, which includes a study of selected topics in the areas of electrodynamics, optics, and atomic physics. Laboratory includes a one hour problem session. Laboratory fee required.

131 Applied Physics 4 Cr., 3 Lec., 3 Lab.
Prerequisite: Mathematics 195 or concurrent enrollment in Mathematics 195. The first half of a one year course designed to explain the basic concepts of the property of matter, mechanics, and heat. Emphasis will be placed on applications and problem solving. Designed primarily for students enrolled in technical programs. Laboratory includes a one hour problem session. Laboratory fee required.
132 Applied Physics 4 Cr., 3 Lec., 3 Lab.
Prerequisite: Physics 131. A continuation of Physics 131 designed to explain basic concepts in the areas of sound, light, electricity, magnetism, and atomic theory. Laboratory fee required.

201 General Physics 4 Cr., 3 Lec., 3 Lab.
Prerequisite: Credit or concurrent registration in Mathematics 126. Principles and applications of mechanics, wave motion, and sound emphasizing fundamental concepts, problem solving, notation, and units. Designed primarily for physics, chemistry, mathematics, and engineering majors. Laboratory includes a one hour problem session. Laboratory fee required.

202 General Physics 4 Cr., 3 Lec., 3 Lab.
Prerequisites: Physics 201 and credit or concurrent registration in Mathematics 227. Principles and applications of heat, electricity, magnetism and optics emphasizing fundamentals, concepts, problem solving, notation and units. Laboratory includes a one hour problem session. Laboratory fee required.

105 Introduction to Psychology 3 Cr., 3 Lec.
A study of basic problems and principles of human experience and behavior; heredity and environment, the nervous system, motivation, learning, emotions, thinking and intelligence. (This course is offered on campus and may be offered via television.)

131 Human Relations 3 Cr., 3 Lec.
A study involving the direct application of psychological principles to human relations problems in business and industry. Consideration is given to group dynamics and adjustment factors related to employment and advancement. The presentation will be tailored to fit the needs of the students enrolled in each section.

101 Effective College Reading 3 Cr., 3 Lec.
Reading 101 emphasizes comprehension techniques in reading fiction and nonfiction. Improved critical reading skills including analysis, critique and evaluation of written material are explored. Reading comprehension and flexibility of reading rate are stressed. In addition, advanced learning techniques in listening, note-taking, underlining, concentration, and reading in specialized academic areas are developed.

102 Speed Reading/Learning 3 Cr., 3 Lec.
This course emphasizes improved critical reading/learning skills utilizing an aggressive, dynamic approach. Reading comprehension is stressed using speed reading techniques. Learning and memory depth skills are taught. Offered in a laboratory setting.

130 Real Estate Principles and Practices 3 Cr., 3 Lec.
Fundamental principles and practices covering the broad subject of real estate together with real estate law and operating procedures applicable to the state of Texas. This course of study shall include but not be limited to the following: arithmetical calculations as used in real estate transactions; rudimentary principles of conveyancing; the general purposes and effect of deeds; deeds of trust; mortgages; land contracts of sales; leases; liens; and listing contracts; elementary principles of land economics and appraisals; fundamentals of obligations between principal and agent; principles of real estate practice and canons of ethics pertaining thereto; and the provisions of this act and rules and regulations of the commission.

131 Real Estate Finance 3 Cr., 3 Lec.
Suggested for students currently enrolled in or who have completed principles & practices. Procedures in financing real estate sales, obtaining funds, legal aspects of mortgages and related instruments. Also problems and cases in real estate finance.
135 Real Estate Appraisal
3 Cr., 3 Lec.
Prerequisite: Real Estate 130 or consent of instructor. Principles and methods of appraisal generally used in establishing the market value of real estate along with the knowledge and skills necessary for application or interpretation.

136 Real Estate Law
3 Cr., 3 Lec.
Prerequisite: Real Estate 130 or consent of instructor. Emphasizes the more complex aspects of real estate law as encountered by those concerned with real estate transactions. Practical application relating to ownership, use and transfer of real property, enforceability of contractual rights, and the impact of litigation affecting title to real property.

Religion

101 Religion in American Culture
3 Cr., 3 Lec.
A systematic examination of religion in American culture. Emphasis upon the characteristics of American religion, an objective study of various religious groups, and an examination of the relation of religion to the arts and other cultural phenomena.

103 Introduction to Philosophy of Religion
3 Cr., 3 Lec.
Investigation of basic problems in philosophy of religion: faith and reason, the existence of God, the nature of religious language and literature, evil and human destiny. Analysis of the effect of religious belief and practice upon social and moral life in both eastern and western traditions.

131 American Civilization
3 Cr., 3 Lec.
A course designed to provide the student with some historical perspective for understanding the economic, political, and social institutions of modern society. In this context, emphasis will be placed upon U.S. and Texas history and constitutional development. It is advised that these courses be taken in order: 131, 132.

132 American Civilization
3 Cr., 3 Lec.
A continuation of social science 131.

Social Science

101 Introduction to Sociology
3 Cr., 3 Lec.
An inquiry into the nature of society and the foundations of group life, including institutions, with a broad presentation of the basis of social change, processes and problems.

102 Social Problems
3 Cr., 3 Lec.
Prerequisite: Sociology 101. A study of the background, emergence and scope of current group relationships in our society, emphasizing topics as they apply to social adjustment in the family and the total community environment.

Sociology

101 Beginning Spanish
4 Cr., 3 Lec., 2 Lab.
Essentials of grammar, easy idiomatic prose, stress on pronunciation, comprehension, and oral expression. Laboratory fee required.

102 Beginning Spanish
4 Cr., 3 Lec., 2 Lab.
Prerequisite: Spanish 101 or equivalent. Continuation of Spanish 101 with emphasis on idiomatic language and complicated syntax. Laboratory fee required.
100 Speech Laboratory 1 Cr., 3 Lab.
A laboratory course for the preparation of speeches, reading of dialogue from
literature, and debate propositions which will be presented throughout the
community. May be repeated for one additional hour of credit each semester.

105 Fundamentals of Public Speaking 3 Cr., 3 Lec.
An introductory course in public speaking. Principles of reasoning. Emphasis
upon the delivery of carefully prepared speeches. Special attention to audience
analysis, collection of materials, and outlining.

109 Voice and Articulation 3 Cr., 3 Lec.
A study of the mechanics of speech applied to the improvement of the
individual's voice and pronunciation.

201 Forensic Workshop 1 Cr., 2 Lab.
A laboratory course for the preparation of speeches, readings, and debate
propositions which will be presented in competition and before select audi-
ences. May be repeated for one additional unit of credit.

100 Rehearsal and Performance 1 Cr., 4 Lab.
Prerequisite: Acceptance as a member of the cast or crew of a major produc-
tion. Participation in the class includes the rehearsal and performance of the
current theatrical presentation of the division. May be repeated for credit.
Credit limited to one hour per semester.

101 Introduction to the Theatre 3 Cr., 3 Lec.
A general survey designed to acquaint the student with the various aspects of
theatre, plays and playwrights, directing and acting, theatres, artists, and
technicians.

102 Contemporary Theatre 3 Cr., 3 Lec.
A study of the modern theatre and cinema as art forms, with attention to the
historical background and traditions of each. Emphasis is placed on a better
understanding of the social, cultural, and aesthetic significance of these media
in today's life. Includes the reading of a number of modern plays and the
viewing of specially selected films.

103 Stagecraft I 3 Cr., 2 Lec., 3 Lab.
A study of the technical aspects of play production including set design and
construction, stage lighting, make-up, costuming, and related areas.

104 Stagecraft II 3 Cr., 2 Lec., 3 Lab.
Prerequisite: Theatre 103 or consent of instructor. A continuation of Theatre
103 with emphasis on individual projects in set and lighting design and con-
struction, including further exploration of the technical aspects of play pro-
duction.

105 Make-up for the Stage 3 Cr., 3 Lec.
Theory and practice of the craft of make-up. Laboratory fee required.

106 Acting I 3 Cr., 2 Lec., 3 Lab.
Individual and group activity with theory and exercises in bodily control,
voice, pantomime, interpretation, characterization, and stage movement.
Analysis and study of specific roles for stage presentation.

107 Acting II 3 Cr., 2 Lec., 3 Lab.
Prerequisite: Theatre 106 or consent of instructor. Continuation of Theatre 106
with emphasis on problems of complex characterization, ensemble acting,
stylized acting and acting in period plays.

108 Movement for the Stage 3 Cr., 2 Lec., 3 Lab.
A study of movement as both a pure form as well as its relation and integration
with the theatre arts. The course will include movement as a technique to
control balance, rhythm, strength, and flexibility. Movement will be explored
as it is used in all the theatrical forms and in development of characterization.
May be repeated for credit.
109  Voice and Articulation  3 Cr., 3 Lec.
Same as Speech 109. The student may not receive credit for both Theatre 109
and Speech 109.

199  Demonstration Lab  1 Cr., 1 Lab.
One hour a week course designed to allow the theatre student an opportunity
to practice the theory learned in specific theatre classes before an audience.
Scenes studied in various drama classes will show contrast and the different
perspectives. Required of all drama students — open to all students.

Word
Processing

(See Business 165)

Work
Experience

(See Cooperative Work Experience)
# TECHNICAL OCCUPATIONAL PROGRAMS

Career Programs offered in the Dallas County Community College District.

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<th>North Lake College</th>
<th>Eastfield College</th>
<th>El Centro College</th>
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<td>Accounting Associate</td>
<td>Accounting</td>
<td>Accounting Associate</td>
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<tr>
<td>Air Conditioning and</td>
<td>Air Conditioning and Refrigeration</td>
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<td>Refrigeration</td>
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<td>Diesel Mechanics</td>
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<td>Mid-Management</td>
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<td>Technology</td>
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<td>Vocational Nursing</td>
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67
Mid-Management
Pattern Design
Police Science
Secretarial Careers
  General
  Professional

**Mountain View College**
Accounting Associate
Animal Medical Technology
Aviation Administration
  Air Cargo
  Transportation
  Airline Marketing
  Fixed Base
  Operations
Avionics
Drafting & Design Technology
Electronics Technology
Horology
  (Watch Repair)

**Richland College**
Accounting Associate
Accounting Technology
Consultant
  Management & Technology
Engineering Technology
  Electric Power
  Electro-Mechanical
  Fluid Power
  Quality Control
Human Services
  Mental Health
  Assistant
  Social Worker
  Assistant

**Cedar Valley College**
Accounting Associate
Air Conditioning & Refrigeration
Appliance Repair
Auto Mechanic
Mid-Management
Retail

**Brookhaven**
Accounting Associate
Auto Body Repair
Auto Mechanics
Auto Parts—Specialists
Child Care & Development

Legal
  General Office
  Occupations
  Teacher Aide
  TV & Radio Electronics

Machine Shop
Mid-Management
Pilot Technology
Secretarial Careers
  General
  Professional
  Office Skills & Systems
  General Office
  Occupations
  Teacher Aide
  Welding Technology

Mid-Management
  Ornamental
  Horticulture
  Real Estate
Secretarial Careers
  Administrative
  Educational
  General Office
  Occupations
  Professional
  Office Skills & Systems
  General
  Teacher Aide

Secretarial Occupations
  General Office
  Careers
  Secretarial Careers
  Power Mechanics
  Marine Engines
  Motorcycles
  Small Engines

Mid-Management
  Retail Merchandising
  Secretarial Careers
Dallas County residents may enroll in the programs listed below at the appropriate Tarrant County Junior College at the Tarrant County resident's tuition rate.

**Career Programs of Tarrant County Available to Dallas County Residents**

**Northeast Campus**
- Banking and Finance
- Civil Technology
- Dental Hygiene
- Emergency Medical Technician
- Fashion Merchandising

**Northwest Campus**
- Agribusiness
- Aviation Maintenance Technician
- Small Business Management

**South Campus**
- Industrial Supervision
- Medical Secretarial
- Power Transmission

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**PROGRAMS**

This program is designed to provide the student with a working knowledge of bookkeeping procedures currently in use in business; to introduce accounting principles supporting bookkeeping procedures; and to give you practical bookkeeping experience by the use of problem solving.

**Certificate Program**

Courses required for a Certificate of Completion are listed below. The courses may be taken in any order provided that prerequisites have been met. Students should check the course descriptions in the catalog to determine which courses have prerequisites.

<table>
<thead>
<tr>
<th>Course Number and Description</th>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 105 Introduction to Business</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 131 Bookkeeping I</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 132 Bookkeeping II</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 160 Office Machines</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>*BUS 172 Beginning Typewriting</td>
<td>80</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 174 Intermediate Typewriting</td>
<td>48</td>
<td>2</td>
</tr>
<tr>
<td>COM 131 Applied Composition and Speech</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>COM 132 Applied Composition and Speech</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>CS 175 Introduction to Computer Sciences</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>MTH 130 Business Mathematics</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td><strong>Elective</strong></td>
<td>48</td>
<td>3</td>
</tr>
</tbody>
</table>

Minimum hours for Certificate 480 29

*Students are placed in typewriting according to skill.

**Suggested Electives**
- BUS 162, BUS 231, BUS 234, PSY 131
This program is designed to prepare the student for a career as a junior accountant in business, industry, and government. Emphasis will be placed on internal accounting procedures and generally accepted accounting principles as they relate to external reporting with selected electives in cost accounting and tax accounting.

### Associate Degree Program

Courses required for an Associate in Applied Arts and Sciences Degree are listed below. The courses may be taken in any order provided that prerequisites have been met. Students should check the course descriptions in the catalog to determine which courses have prerequisites.

<table>
<thead>
<tr>
<th>Course No. and Description</th>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 105 Introduction to Business</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 136 Principles of Management</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 160 Office Machines</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 172 Beginning Typewriting</td>
<td>80</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 703 or BUS 704 Work Experience</td>
<td>240 or 320</td>
<td>3 or 4</td>
</tr>
<tr>
<td>BUS 201 Principles of Accounting I</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 202 Principles of Accounting II</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 203 Intermediate Accounting</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 204 Managerial Accounting</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 231 Business Correspondence</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 234 Business Law</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 237 Organizational Behavior</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 238 Cost Accounting</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 239 Income Tax Accounting</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 803 or BUS 804 Work Experience</td>
<td>240 or 320</td>
<td>3 or 4</td>
</tr>
<tr>
<td>or *Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 813 or BUS 814 Work Experience</td>
<td>240 or 320</td>
<td>3 or 4</td>
</tr>
<tr>
<td>or *Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COM 131 Applied Composition and Speech</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>or ENG 101 Composition and Expository Reading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COM 132 Applied Composition and Speech</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>or ENG 102 Composition and Literature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS 175 Introduction to Computer Sciences</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201 Principles of Economics I</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202 Principles of Economics II</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>GVT 201 American Government</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>MTH 130 Business Mathematics</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>or MTH 111 Mathematics for Business and Economics I</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Minimum hours for Associate Degree: 1040

*Electives: BUS 143, BUS 206, PSY 105, PSY 131, BUS 205

Minimum hours for Associate Degree: 63
This program is designed to prepare the student for entry level employment in the Air Conditioning and Refrigeration Industry. Two options are available in this program: Residential Air Conditioning and Commercial Refrigeration and Air Conditioning. The student will develop the skills and knowledge necessary to install, repair and maintain equipment related to these options.

All air conditioning courses are completely individualized. This allows the students to progress at their own pace in order to fully comprehend the theory and develop the necessary skills. The individualized, self-paced instruction also allows the student to take a portion of a course (module) without taking the complete course, if some specific knowledge or skill is desired.

Students may elect to receive a certificate or may apply the certificate courses required in this program toward an Associate in Applied Arts and Science Degree.

**Certificate Program**

A Certificate of Completion may be obtained in one or both of the options in the Air Conditioning Program. In order to qualify for a certificate, the student must successfully complete the core courses in addition to those listed for the specific option. The courses may be taken in any order desired after consultation with the instructor.

<table>
<thead>
<tr>
<th>Core Courses (Required of all students)</th>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 400 — Basic Electricity 180 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>all of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC 401 Basic Units of Measurement and</td>
<td>30 1</td>
<td></td>
</tr>
<tr>
<td>Measuring Device</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC 402 Simple Schematics and Circuits</td>
<td>30 1</td>
<td></td>
</tr>
<tr>
<td>AC 403 Circuit Components</td>
<td>30 1</td>
<td></td>
</tr>
<tr>
<td>AC 404 Complex Schematics and Circuits</td>
<td>60 2</td>
<td></td>
</tr>
<tr>
<td>AC 405 A. C. Motor Fundamentals</td>
<td>30 1</td>
<td></td>
</tr>
<tr>
<td>AC 410 — Basic Refrigeration 300 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>all of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC 411 Elementary Thermodynamics and</td>
<td>30 1</td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC 412 Heat Transfer and Air Properties</td>
<td>30 1</td>
<td></td>
</tr>
<tr>
<td>AC 413 Refrigerants and Refrigerant</td>
<td>30 1</td>
<td></td>
</tr>
<tr>
<td>Properties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC 414 The Vapor Compression System</td>
<td>90 3</td>
<td></td>
</tr>
<tr>
<td>and Accessories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC 415 Piping and Fittings</td>
<td>30 1</td>
<td></td>
</tr>
<tr>
<td>AC 416 Leak Detection, Leak Repair and</td>
<td>30 1</td>
<td></td>
</tr>
<tr>
<td>Evacuation-Basic Refrigeration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC 417 The Pressure — Enthalpy Diagram</td>
<td>30 1</td>
<td></td>
</tr>
<tr>
<td>AC 418 Charging and Discharging</td>
<td>30 1</td>
<td></td>
</tr>
<tr>
<td>the System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTH 195 — Technical Mathematics</td>
<td>48 3</td>
<td></td>
</tr>
</tbody>
</table>

**Commercial Refrigeration and Air Conditioning Certificate Option**

The student will develop skills in diagnosing, servicing, checking, installing and repairing both electrical and mechanical components of Commercial Refrigeration and Industrial Air Conditioning Systems.

<table>
<thead>
<tr>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 450 — Commercial Refrigeration 360 12</td>
<td></td>
</tr>
</tbody>
</table>
Minimum hours for Commercial Certificate option

Residential Air Conditioning Certificate Option

The student will develop skills in diagnosing, checking, servicing, installing and repairing both electrical and mechanical components of residential cooling and heating systems; the student will also make load calculations, select equipment and design residential air distribution systems.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 449</td>
<td>Electric Motors and Starting Devices — Commercial Refrigeration</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 451</td>
<td>Refrigeration Systems</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>AC 452</td>
<td>Multiple Systems</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 453</td>
<td>Piping and the Refrigerant Circuit — Commercial Refrigeration</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 454</td>
<td>Flow Control &amp; Pressure Control Devices</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 455</td>
<td>Moisture Problems &amp; Defrost Systems</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 456</td>
<td>Load Calculations — Commercial Refrigeration</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 457</td>
<td>The Refrigerant Charge and System Performance</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 458</td>
<td>Leak Detection, Leak Repair and Evacuation — Commercial Refrigeration</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 459</td>
<td>The Electrical Circuit and Control Devices — Commercial Refrigeration</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 460</td>
<td>Industrial Air Conditioning</td>
<td>420</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>or all of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC 461</td>
<td>Absorption Systems</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 462</td>
<td>Vapor Compression Systems</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>AC 463</td>
<td>Multiple Systems, Flow Control and Pressure Control Devices</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 464</td>
<td>Applied Psychrometrics and System Performance</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 465</td>
<td>Air Distribution — Industrial Air Conditioning</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 466</td>
<td>Leak Detection, Leak Repair and Evacuation — Industrial Air Conditioning</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 467</td>
<td>Piping and the Refrigerant Circuit — Industrial Air Conditioning</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 468</td>
<td>Electrical Circuits and Control Devices — Industrial Air Conditioning</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 469</td>
<td>Pneumatic Control Systems</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 477</td>
<td>Boilers — Combustion Process</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 478</td>
<td>Boiler Electrical Circuits</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 479</td>
<td>Hydronic Systems</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 703</td>
<td>Work Experience</td>
<td>240</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or 704</td>
<td>320</td>
<td>4</td>
</tr>
</tbody>
</table>

Minimum hours for Commercial Certificate option 1548 48

Residential Air Conditioning Certificate Option

The student will develop skills in diagnosing, checking, servicing, installing and repairing both electrical and mechanical components of residential cooling and heating systems; the student will also make load calculations, select equipment and design residential air distribution systems.

Contact Hours | Credit Hours
--- | ---
AC 420 — Residential A/C Units—Cooling | 360 12

or all of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 419</td>
<td>Electric Motors</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 421</td>
<td>Properties of Air</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>AC 422</td>
<td>Heat Transfer and the Cooling Load</td>
<td>30</td>
<td>1</td>
</tr>
</tbody>
</table>
Students wishing to earn an Associate in Applied Arts and Sciences Degree with a major in Residential Air Conditioning or Commercial Refrigeration and Air Conditioning must complete all of the courses for the certificate program for that specific option in addition to the courses listed below.

**Associate Degree Program**

<table>
<thead>
<tr>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>96</td>
<td>4</td>
</tr>
<tr>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>64</td>
<td>2</td>
</tr>
</tbody>
</table>

Six hours of electives are required and shall be selected from the following list of courses.

<table>
<thead>
<tr>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>48</td>
<td>3</td>
</tr>
</tbody>
</table>

Minimum hours for Residential Certificate option — 1548 48
This program is designed to prepare the student for entry level employment as a carpenter in the Building Construction field. Specific training is provided in the use and care of hand tools and power equipment, scheduling, layout and construction of residential and light commercial type buildings, cabinet making, blueprint reading and cost estimating. Two options are available in this program: Residential Carpentry and Commercial Carpentry.

All Building Trades courses are individualized. This allows the students to progress at their own pace in order to fully comprehend the theory and develop the necessary skills. The individualized self-paced instruction also allows the student to take a course (module) without taking the complete course. Credit for prior training or experience may be granted.

Students may elect to receive a certificate or may apply the certificate courses required in this program toward an Associate in Applied Arts and Sciences Degree.

Certificate Program

A Certificate of Completion may be obtained in one or both of the options in Building Trades — Carpentry. In order to qualify for a certificate, the student must successfully complete the following core courses in addition to those listed for the specific option. The courses may be taken in any order after consultation with the instructor.

Core Courses (Required of all Students)  
CAR 400 — Woodworking Tools & Materials  
CAR 410 — Site Preparation and Foundations  
or

All of the following courses:
CAR 411 Use of Builders Level & Rod  
CAR 412 Batter Boards  
CAR 413 Foundation Forming  
CAR 420 — Interior Trim  
or

All of the following courses:
CAR 421 Paneling  
CAR 422 Dry Wall  
CAR 423 Door Hanging  
CAR 424 Window Installation  
CAR 430 — Construction Cost Estimating  
BPR 177 — Blue Print Reading  
MTH 195 — Technical Mathematics

Residential Carpentry Certificate Option

The residential carpentry option is designed to prepare the student for entry level employment as a carpenter in all phases of residential construction.

CAR 440 — Rough Framing  
or

<table>
<thead>
<tr>
<th>Course</th>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 131 — Bookkeeping</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 136 — Principles of Management</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 153 — Small Business Management</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>AC 803 Work Experience</td>
<td>240</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>or</td>
<td>or</td>
</tr>
<tr>
<td>804</td>
<td>320</td>
<td>4</td>
</tr>
</tbody>
</table>

Minimum hours for Associate Degree 1900 66
Both of the following courses:
CAR 441 Floor and Sill Framing  60  2
CAR 442 Wall and Partition Framing  60  2

CAR 450 — Roof Framing  150  5
or
All of the following courses:
CAR 451 Styles, Terminology & Methods  30  1
CAR 452 Gable Roofs  30  1
CAR 453 Hip Roofs  30  1
CAR 454 Mansard & Gambrel Roofs  30  1
CAR 455 Shed Roofs  30  1

CAR 460 — Stair Building  90  3
or
Both of the following courses:
CAR 461 Stair Terminology and Calculations  30  1
CAR 462 Stair Construction  60  2

CAR 470 — Exterior Trim and Finish  60  2
or
Both of the following courses:
CAR 471 Exterior Sheathing  30  1
CAR 472 Exterior Trim  30  1

CAR 480 — Custom Cabinet Making  210  7
or
All of the following courses:
CAR 481 Design & Construction of Modern Cabinets  30  1
CAR 482 Cabinet Installation  60  2
CAR 483 Cabinet Construction  120  4

CAR 703 — Work Experience  240  3
or  704  320  4

Minimum hours for Residential Certificate option — 1308  40

Commercial Carpentry Certificate Option

The commercial carpentry option is designed to prepare the student for entry level employment as a carpenter in the construction industry related to light commercial buildings.

Contact Hours  Credit Hours

CAR 490 — Commercial Building  330  11
or
All of the following courses:
CAR 491 Terminology  30  1
CAR 492 Vertical Piers & Columns  60  2
CAR 493 Horizontal Beam Forms  90  3
CAR 494 Fire Proof Encasement Forms  90  3
CAR 495 Stair Forms  60  2

CAR 703 — Work Experience  240  3
or  704  320  4

Minimum hours for Commercial Certificate option — 978  30

Associate Degree Program

Students wishing to earn an Associate in Applied Arts and Sciences Degree with a major in Residential Carpentry or Commercial Carpentry must complete all of the courses for the certificate program for that specific option in addition to the courses listed following:
Building Trades — Electricity

Electives required to complete the Associate Degree from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 131 — Applied Composition &amp; Speech</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>SS 131 — American Civilization</td>
<td>48</td>
<td>3</td>
</tr>
</tbody>
</table>

Students wishing to earn an Associate in Applied Arts and Sciences Degree with a major in Residential Carpentry or Commercial Carpentry must complete all of the courses for the certificate program for that specific option in addition to the courses listed above.

Certificate Program

Completion of all of the courses listed below qualifies a student for a certificate in Building Trades — Electricity. The courses may be taken in any order after consultation with the instructor.

<table>
<thead>
<tr>
<th>Course</th>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELE 470 — Electrical Orientation</td>
<td>30</td>
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<tr>
<td>ELE 400 — DC and AC Circuits</td>
<td>120</td>
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<tr>
<td>or</td>
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<tr>
<td>all of the following courses:</td>
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<tr>
<td>ELE 401 DC Circuits &amp; Measurements</td>
<td>30</td>
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<tr>
<td>ELE 402 Basic AC Circuits</td>
<td>60</td>
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<tr>
<td>ELE 403 Three-Phase Circuits</td>
<td>30</td>
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</tr>
<tr>
<td>ELE 410 — Residential Wiring Practices</td>
<td>270</td>
<td>9</td>
</tr>
<tr>
<td>or</td>
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<tr>
<td>all of the following courses:</td>
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<tr>
<td>ELE 411 Residential Codes</td>
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<tr>
<td>ELE 412 General Wiring Practices</td>
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<tr>
<td>ELE 413 Appliance Circuits</td>
<td>90</td>
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<td>ELE 414 Low Voltage Circuits</td>
<td>30</td>
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<tr>
<td>Course</td>
<td>Credit Hours</td>
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<tr>
<td>---------------------------------------------</td>
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<tr>
<td>ELE 420 — Commercial Wiring Practices</td>
<td>240</td>
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<tr>
<td>all of the following courses:</td>
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<tr>
<td>ELE 421 Commercial Codes</td>
<td>30</td>
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<tr>
<td>ELE 422 Commercial Wiring</td>
<td>120</td>
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<tr>
<td>ELE 423 Power Circuits</td>
<td>90</td>
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<tr>
<td>Contact Hours</td>
<td>Credit Hours</td>
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</tr>
<tr>
<td>ELE 430 — Electrical Machines</td>
<td>90</td>
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<td>or</td>
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<tr>
<td>all of the following courses:</td>
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<tr>
<td>ELE 431 Motor Codes</td>
<td>30</td>
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<tr>
<td>ELE 432 DC and Single-Phase Machines</td>
<td>30</td>
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<tr>
<td>ELE 433 Three-Phase Motors</td>
<td>30</td>
<td></td>
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<tr>
<td>ELE 440 — Motor Controls</td>
<td>120</td>
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<tr>
<td>or</td>
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<td></td>
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<tr>
<td>all of the following courses:</td>
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</tr>
<tr>
<td>ELE 441 Control Circuit Diagrams</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>ELE 442 Magnetic Starting and Overload Protection</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>ELE 443 Jogging, Reversing and Sequencing</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>ELE 444 Solid State Controls</td>
<td>30</td>
<td></td>
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<tr>
<td>ELE 450 — Transformers</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>all of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELE 451 Transformer Types and Testing</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>ELE 452 Distribution Transformers</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>ELE 460 — Job Layout and Estimating</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>all of the following courses:</td>
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<td></td>
</tr>
<tr>
<td>ELE 461 Residential Planning</td>
<td>60</td>
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<tr>
<td>ELE 462 Commercial Planning</td>
<td>60</td>
<td></td>
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<tr>
<td>MTH 195 — Technical Mathematics</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>BPR 177 — Blueprint Reading</td>
<td>60</td>
<td></td>
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<tr>
<td>ELE 703 — Work Experience</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
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<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>704</td>
<td>320</td>
<td></td>
</tr>
<tr>
<td>Minimum hours for Certificate</td>
<td>1428</td>
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</table>

**Associate Degree Program**

Students wishing to earn an Associate in Applied Arts and Sciences Degree with a major in Building Trades — Electricity must complete all of the courses listed for the certificate program in addition to the courses listed below.

<table>
<thead>
<tr>
<th>Course</th>
<th>Contact Hours</th>
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</thead>
<tbody>
<tr>
<td>COM 131 — Applied Composition &amp; Speech</td>
<td>48</td>
</tr>
<tr>
<td>SS 131 — American Civilization</td>
<td>48</td>
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</tbody>
</table>

Twelve credit hours of electives are required and shall be selected from the following list of courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 132 — Applied Composition &amp; Speech</td>
<td>48</td>
</tr>
<tr>
<td>PSY 131 — Human Relations</td>
<td>48</td>
</tr>
<tr>
<td>PHY 131 — Applied Physics</td>
<td>96</td>
</tr>
<tr>
<td>BUS 105 — Introduction to Business</td>
<td>48</td>
</tr>
<tr>
<td>BUS 131 — Bookkeeping</td>
<td>48</td>
</tr>
</tbody>
</table>
This program is designed to prepare the student for entry level employment in the Diesel Maintenance industry. The student will develop the skills and knowledge necessary for the maintenance, repair and rebuilding of various diesel engines and diesel powered equipment.

All diesel mechanics courses are completely individualized. This allows the students to progress at their own pace in order to fully comprehend the theory and develop the necessary skills. The individualized, self-paced instruction also allows the student to take a portion of a course (module) without taking the complete course if some specific knowledge or skill is desired. Credit for prior experience or training may be given. Students may elect to receive a certificate or may apply the certificate courses required in this program toward an Associate in Applied Arts and Sciences Degree.

### Certificate Program

Completion of the courses listed below qualifies a student for a certificate in Diesel Mechanics. The courses may be taken in any order desired after consultation with the instructor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DME 400</td>
<td>Diesel Engine Fundamentals and Component Repair</td>
<td>270</td>
<td>9</td>
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<tr>
<td>or</td>
<td>All of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DME 401</td>
<td>Rebuilding Cylinder Heads</td>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>DME 402</td>
<td>Rebuilding Caterpillar Short Block</td>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>DME 403</td>
<td>Rebuilding Cummins Short Block</td>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>DME 404</td>
<td>Rebuilding Detroit Diesel Short Block</td>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>DME 405</td>
<td>Air Induction, Cooling and Lubrication</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>DME 410</td>
<td>Diesel Engine Fuel Systems</td>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>DME 420</td>
<td>Diesel Engine Tune-up and Operation</td>
<td>90</td>
<td>3</td>
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<tr>
<td>or</td>
<td>All of the following courses:</td>
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<td></td>
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<tr>
<td>DME 421</td>
<td>Caterpillar Engine Tune-up &amp; Operation</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>DME 422</td>
<td>Cummins Engine Tune-up &amp; Operation</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>DME 423</td>
<td>Detroit Diesel Engine Tune-up &amp; Operation</td>
<td>30</td>
<td>1</td>
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<tr>
<td>DME 430</td>
<td>Diesel Engine Overhaul</td>
<td>180</td>
<td>6</td>
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<tr>
<td>or</td>
<td>All of the following courses:</td>
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<tr>
<td>DME 431</td>
<td>Caterpillar Engine Rebuilding</td>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>DME 432</td>
<td>Cummins Engine Rebuilding</td>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>DME 433</td>
<td>Detroit Diesel Engine Rebuilding</td>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>DME 440</td>
<td>Diesel Shop Practices</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>All of the following courses:</td>
<td></td>
<td></td>
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<tr>
<td>DME 441</td>
<td>Oxygen/Acetylene Welding</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>DME 442</td>
<td>Arc Welding</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>DME 443</td>
<td>Use and Operation of Power Tools</td>
<td>30</td>
<td>1</td>
</tr>
</tbody>
</table>
DME 450 — Vehicle Electrical Systems
or
   Both of the following courses
DME 451 Electricity: The Theory & Basic Circuitry
DME 452 Starting, Charging, Lighting, & Accessory Circuits
DME 460 — Drive Train and Brakes
or
   All of the following courses:
DME 461 Five Speed Standard Transmission
DME 462 Fuller RI-910 Standard Transmission
DME 463 Differentials
DME 464 Allison Automatic Transmission
DME 465 Responder Automatic Transmission
DME 466 Caterpillar Power Shift Transmission
DME 467 Air Brake Systems
DME 468 Clutches
DME 469 Torque Converters
MTH 195 — Technical Mathematics
DME 703 — Work Experience
or
   704

Minimum hours for Certificate — 1478 45

**Associate Degree Program**

Students wishing to earn an Associate in Applied Arts and Sciences Degree with a major in Diesel Mechanics must complete all of the courses listed for the certificate program in addition to the courses listed below.

<table>
<thead>
<tr>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 131 — Applied Composition and Speech</td>
<td>48 3</td>
</tr>
<tr>
<td>PHY 131 — Applied Physics</td>
<td>96 4</td>
</tr>
<tr>
<td>SS 131 — American Civilization</td>
<td>48 3</td>
</tr>
</tbody>
</table>

Nine hours of electives are required and shall be selected from the following list of courses.

<table>
<thead>
<tr>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 132 — Applied Composition and Speech</td>
<td>48 3</td>
</tr>
<tr>
<td>PSY 131 — Human Relations</td>
<td>48 3</td>
</tr>
<tr>
<td>BPR 177 — Blueprint Reading</td>
<td>64 2</td>
</tr>
<tr>
<td>BUS 105 — Introduction to Business</td>
<td>48 3</td>
</tr>
<tr>
<td>BUS 131 — Bookkeeping I</td>
<td>48 3</td>
</tr>
<tr>
<td>BUS 136 — Principles of Management</td>
<td>48 3</td>
</tr>
<tr>
<td>BUS 153 — Small Business Management</td>
<td>48 3</td>
</tr>
<tr>
<td>DME 803 — Work Experience</td>
<td>240 3</td>
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<tr>
<td>or</td>
<td>or</td>
</tr>
<tr>
<td>804</td>
<td>320 4</td>
</tr>
</tbody>
</table>

Minimum hours for Associate Degree — 1814 64
**Mid-Management**

The Mid-Management program is a cooperative plan with members of the business community whereby the student attends college classes in business and related courses and concurrently works at a regular, paid, part-time job in a sponsoring business firm.

**Associate Degree Program**

Courses required for an Associate in Applied Arts and Sciences Degree are listed below. The courses may be taken in any order provided that prerequisites have been met. The student should check the course descriptions in the catalog to determine which courses have prerequisites.

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>BUS 136 — Principles of Management</td>
<td>3</td>
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<tr>
<td>BUS 150 — Management Training</td>
<td>0</td>
<td>20</td>
<td>4</td>
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<tr>
<td>BUS 154 — The Role of Supervision</td>
<td>2</td>
<td>0</td>
<td>2</td>
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<tr>
<td>COM 131 — Applied Composition and Speech</td>
<td>3</td>
<td>0</td>
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<tr>
<td>or</td>
<td></td>
<td></td>
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<tr>
<td>ENG 101 — Composition and Expository Reading</td>
<td></td>
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<tr>
<td>HUM 101 — Introduction to the Humanities</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Spring Semester</th>
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</thead>
<tbody>
<tr>
<td>BUS 105 — Introduction to Business</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>BUS 151 — Management Training</td>
<td>0</td>
<td>20</td>
<td>4</td>
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<tr>
<td>BUS 155 — Personnel Management</td>
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<tr>
<td>COM 132 — Applied Composition and Speech</td>
<td>3</td>
<td>0</td>
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<tr>
<td>or</td>
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<td></td>
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<tr>
<td>ENG 102 — Composition and Literature</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>*Elective</th>
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</table>

<table>
<thead>
<tr>
<th>Fall Semester</th>
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</thead>
<tbody>
<tr>
<td>BUS 201 — Principles of Accounting</td>
<td>3</td>
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<td>or</td>
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</tr>
<tr>
<td>BUS 131 — Bookkeeping</td>
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<tr>
<td>BUS 250 — Management Training</td>
<td>0</td>
<td>20</td>
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<td>BUS 254 — Organizational Development</td>
<td>2</td>
<td>0</td>
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<tr>
<td>SS 131 — American Civilization</td>
<td>3</td>
<td>0</td>
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<tr>
<td>or</td>
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<tr>
<td>HST 101 — History of the United States</td>
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<table>
<thead>
<tr>
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<table>
<thead>
<tr>
<th>Spring Semester</th>
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</thead>
<tbody>
<tr>
<td>BUS 251 — Management Training</td>
<td>0</td>
<td>20</td>
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<tr>
<td>BUS 255 — Business Strategy, the Decision Process and Problem Solving</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ECO 201 — Principles of Economics I</td>
<td>3</td>
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<td>3</td>
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<tr>
<td>*Elective</td>
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<tr>
<td>**Elective</td>
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</tbody>
</table>

| *Suggested Electives: BUS 137, BUS 153, BUS 160, BUS 204, BUS 206, BUS 231, BUS 233, BUS 234, BUS 237, CS 175, BIO 115, BIO 116, MTH 130, PSY 105, PSY 131, SPE 105. |

**This elective must be chosen from ECO 202 or from courses in the social and behavioral sciences.**
The program in real estate is designed to develop the fundamental skills, attitudes and experiences which enable the student to function in decision-making positions in the real estate profession. Successful completion of the program leads to the Associate in Applied Arts and Sciences degree.

### Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lec. Hrs.</th>
<th>Lab. Hrs.</th>
<th>Credit Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 131</td>
<td>Applied Composition &amp; Speech</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENG 101 - Composition &amp; Expository Reading</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 136</td>
<td>Principles of Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 130</td>
<td>Business Math</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>RE 130</td>
<td>Real Estate Principles &amp; Practices</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>RE 131</td>
<td>Real Estate Finance</td>
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### Spring Semester

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lec. Hrs.</th>
<th>Lab. Hrs.</th>
<th>Credit Hrs.</th>
</tr>
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<tbody>
<tr>
<td>COM 132</td>
<td>Applied Composition &amp; Speech</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENG 102 - Composition &amp; Literature</td>
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<td></td>
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<tr>
<td>BUS 230</td>
<td>Salesmanship</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>RE 135</td>
<td>Real Estate Appraisal</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>RE 136</td>
<td>Real Estate Law</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>or</td>
<td>BUS 234 - Business Law</td>
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<tr>
<td>Elective (Psychology, Sociology or Human Development)</td>
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<tr>
<td></td>
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### Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lec. Hrs.</th>
<th>Lab. Hrs.</th>
<th>Credit Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 201</td>
<td>Principles of Economics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>RE 230</td>
<td>Real Estate Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>RE 250</td>
<td>Real Estate Internship I</td>
<td>0</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>RE 254</td>
<td>Real Estate Seminar I</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>*Elective</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

### Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lec. Hrs.</th>
<th>Lab. Hrs.</th>
<th>Credit Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GVT 201</td>
<td>American Government</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 233</td>
<td>Advertising &amp; Sales Promotion</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>BUS 206 - Principles of Marketing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RE 251</td>
<td>Real Estate Internship II</td>
<td>0</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>RE 255</td>
<td>Real Estate Seminar II</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>*Elective</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

*Recommended Electives:

- RE 233 - Commercial & Investment Real Estate
- RE 235 - Property Management
- BUS 131 - Bookkeeping
- BUS 210 - Principles of Accounting
- BUS 105 - Introduction to Business
- DFT 185 - Architectural Drafting
- ECO 202 - Principles of Economics
- SPE 105 - Fundamentals of Public Speaking
Certificate Program — A program designed for rapid entrance into the general office field.

Associate in Applied Arts and Sciences Degree — A program designed to enable advancement to responsible office positions.

This program is designed to train the student in office skills. Students completing the program will be qualified for positions as a clerk-typist, file clerk, receptionist, and word processing operator. This program does not include shorthand. There is a general orientation to the business world plus intensive training in typewriting, office machines, bookkeeping, and word processing. In the degree program, management principles and human relations skills are stressed which could lead to employment as a word processing supervisor or office manager.

Certificate of Completion

Courses required for a Certificate of Completion are listed below. The courses may be taken in any order provided that prerequisites have been met. Students should check the course descriptions in the catalog to determine which courses have prerequisites.

<table>
<thead>
<tr>
<th>Course</th>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 105 Introduction to Business</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 131 Bookkeeping I</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 201 Principles of Accounting I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 160 Office Machines</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 162 Office Procedures</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 165 Introduction to Word Processing</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 231 Business Correspondence</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>Typewriting (2 courses)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 172 Beginning Typewriting</td>
<td>80</td>
<td>3</td>
</tr>
<tr>
<td>BUS 174 Intermediate Typewriting</td>
<td>48</td>
<td>2</td>
</tr>
<tr>
<td>BUS 273 Advanced Typewriting</td>
<td>48</td>
<td>2</td>
</tr>
<tr>
<td>COM 131 Applied Composition and Speech</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>or ENG 101 Composition and Expository Reading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COM 132 Applied Composition and Speech</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>or ENG 102 Composition and Literature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTH 130 Business Math</td>
<td>48</td>
<td>3</td>
</tr>
</tbody>
</table>

Minimum hours for Certificate 528 31

*Students will be placed in typewriting at a proficiency level determined by high school courses and/or placement tests. If such placement allows bypassing typewriting, enroll in equivalent hours from the suggested electives on the following page.

Associate Degree Program

Students wishing to earn an Associate in Applied Arts and Sciences Degree, must complete the courses listed for the Certificate Program plus the following courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 132 Bookkeeping II</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 202 Principles of Accounting II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 234 Business Law</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 237 Organizational Behavior</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 256 Office Management</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 265 Word Processing Practices and Procedures</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 273 Advanced Typewriting or elective</td>
<td>48</td>
<td>2</td>
</tr>
<tr>
<td>BUS 275 Secretarial Procedures</td>
<td>48</td>
<td>3</td>
</tr>
</tbody>
</table>
HUM 101 Introduction to Humanities 48 3
PSY 131 Human Relations 48 3
**Electives 6

Minimum hours for Associate Degree 1056 63

**Suggested Electives
BUS 136, BUS 137, BUS 813, CS 175, ECO 201, PSY 105, SOC 101

Certificate Program — A program designed for rapid entrance into the secretarial field.

Associate in Applied Arts and Sciences Degree — A program designed for advancement to the executive secretarial level.

The purpose of this program is to prepare the student to become an alert and responsive secretary capable of performing the tasks required in the modern business office. Intensive training is provided in the basic secretarial skills such as shorthand, typewriting, and office machines. Emphasis is also placed on English, math, and human relations skills. The student may elect to receive a certificate only, or may apply the courses required in this major toward an Associate in Applied Arts and Sciences Degree.

Certificate of Completion

Courses required for a Certificate of Completion are listed below. The courses may be taken in any order provided that prerequisites have been met. The student should check the course descriptions in the catalog to determine which courses have prerequisites.

<table>
<thead>
<tr>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 105 Introduction to Business</td>
<td>48</td>
</tr>
</tbody>
</table>
| or
| BUS 131 Bookkeeping I | 48 | 3 |
| BUS 201 Principles of Accounting I | 48 | 3 |
| BUS 160 Office Machines | 48 | 3 |
| BUS 162 Office Procedures | 48 | 3 |
| BUS 165 Introduction to Word Processing | 48 | 3 |
| BUS 231 Business Correspondence | 48 | 3 |
| *Shorthand (2 courses) | |
| BUS 159 Beginning Shorthand | 80 | 4 |
| BUS 166 Intermediate Shorthand | 80 | 4 |
| BUS 266 Advanced Shorthand | 80 | 4 |
| *Typewriting (2 courses) | |
| BUS 172 Beginning Typewriting | 80 | 3 |
| BUS 174 Intermediate Typewriting | 48 | 2 |
| BUS 273 Advanced Typewriting | 48 | 2 |
| COM 131 Applied Composition and Speech | 48 | 3 |
| or
| ENG 101 Composition and Expository Reading | |
| MTH 130 Business Mathematics | 48 | 3 |

Minimum Hours for Certificate 640 36

*The student will be placed in typewriting and shorthand at a proficiency level determined by high school courses and/or placement tests. If such placement allows bypassing shorthand and/or typewriting, enroll in equivalent hours from the suggested electives on the following page.

Associate Degree Program

Students wishing to earn an Associate in Applied Arts and Sciences Degree, must complete the courses listed for the Certificate Program plus the following courses.
<table>
<thead>
<tr>
<th>Course No. and Description</th>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 266 Advanced Shorthand or elective</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>BUS 265 Word Processing Practices and Procedures</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>BUS 273 Advanced Typewriting or elective</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>BUS 275 Secretarial Procedures</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS 803 or BUS 804 Work Experience</td>
<td>3 or 4</td>
<td>3 or 4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective (3 hours)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 813 or BUS 814 Work Experience</td>
<td>3 or 4</td>
<td>3 or 4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective (3 hours)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COM 132 Applied Composition and Speech</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 102 Composition and Literature</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CS 175 Introduction to Computer Sciences</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>HUM 101 Introduction to Humanities</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PSY 131 Human Relations</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Minimum Hours for the Associate Degree: 433 hours

Credit Given for CPS Rating

Credit toward the Associate in Applied Arts and Sciences Degree may be granted upon successful completion of all parts of the Certified Professional Secretary (CPS) Exam. The courses for which credit may be granted are:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 131 Bookkeeping I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 159 Beginning Shorthand</td>
<td>4</td>
</tr>
<tr>
<td>BUS 162 Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>BUS 166 Intermediate Shorthand</td>
<td>4</td>
</tr>
<tr>
<td>BUS 172 Beginning Typewriting</td>
<td>3</td>
</tr>
<tr>
<td>BUS 174 Intermediate Typewriting</td>
<td>2</td>
</tr>
<tr>
<td>BUS 231 Business Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>BUS 234 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>PSY 131 Human Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

In order to receive credit, the applicant must:

1. Request direct notification be given to the Registrar of the College by the Institute for Certifying Secretaries that the applicant has passed all sections of the exam within the last 10 years;
2. Earned 12 hours credit for courses at North Lake before the advanced standing credit is posted on the applicant’s record.

Suggested Electives

BUS 136, BUS 143, BUS 234, BUS 237, PSY 105, SPE 105, BUS 256

Bachelor’s Degree Program

Students who wish to continue their education at a four-year college, should consult a counselor to plan a program of studies to assure that this goal is reached.

Legal Secretary

Associate in Applied Arts & Science Degree only — A program designed to prepare students for professional entry into the legal secretarial field.

Courses required for an Associate in Applied Arts & Sciences in this area include completion of all courses required for the Secretarial Careers Certificate of Completion in addition to the following courses:
<table>
<thead>
<tr>
<th>Course</th>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 266 — Advanced Shorthand or elective</td>
<td>80</td>
<td>4</td>
</tr>
<tr>
<td>BUS 265 — Word Processing Practices and Procedures</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 273 — Advanced Typewriting or elective</td>
<td>48</td>
<td>2</td>
</tr>
<tr>
<td>BUS 275 — Secretarial Procedures</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 167 — Legal Terminology &amp; Transcription</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>BUS 274 — Legal Secretarial Procedures</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>COM 132 — Applied Composition and Speech</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 102 — Composition &amp; Literature</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>CS 175 — Introduction to Computer Science</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>HUM 101 — Introduction to Humanities</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>PSY 131 — Human Relations</td>
<td>48</td>
<td>3</td>
</tr>
</tbody>
</table>

Minimum Hours for the Associate Degree 1120 66

Suggested Electives
BUS 803, BUS 804, BUS 813, BUS 814, BUS 143, BUS 234, BUS 237, PSY 105, SPE 105, and BUS 256.
North Lake College of the Dallas County Community College District is committed to providing equal educational and employment opportunity regardless of sex, marital or parental status, race, color, religion, age or national origin. Title IX of the Educational Amendments of 1972 prohibits discrimination on the basis of sex in any educational program or activity receiving federal financial assistance by way of grant, contract or loan. Title VI of the Civil Rights Act of 1964 is similar in its prohibition of discrimination on the basis of race, color, sex or national origin. Equal educational opportunity includes: admission, recruitment, extracurricular activities and programs, housing, facilities, access to course offerings, counseling and testing, financial assistance, employment, health and insurance services, and athletics. North Lake College and the Dallas County Community College District are also committed to equal opportunities for the physically or mentally handicapped in compliance with Federal regulations. It is the declared policy of North Lake College and the Dallas County Community College District to comply with all the requirements of Title IX of the Educational Amendments of 1972 and Title VI of the Civil Rights Act of 1964 as they now exist or hereafter are amended.

Student grievances shall be handled in accordance with the existing administrative channels of the college. When a student believes a condition of the college, which affects him/her, is unfair, unjust, inequitable or discriminatory, an appeal can be made to the administrator in charge of that area. Appeals to higher administrative authority shall be considered based on the merits of the case.
EXPECTATIONS OF STUDENTS

The College expects its students to conduct themselves in such a way as to reflect credit upon the institution they represent.

THE BASIC EXPECTATION

A most important concept to be understood about The College's expectations of student conduct is the basic standard. Briefly stated, the basic standard of behavior would require a student (a) not to violate any municipal, state or federal laws, or (b) not to interfere with or disrupt the orderly processes or educational affairs of The College. A student is not entitled to greater immunities of privileges before the law than those enjoyed by other citizens generally.

IDENTIFICATION CARDS

I.D. cards will be distributed during registration. They will be needed for the following events and services: library usage, concerts, lectures, community events, and for identification in the Testing Center.

If lost, duplicate I.D. cards may be obtained by initiating a process in the Business Office. There will be a $4.00 charge for replacement. All I.D. cards are the property of The College and must be shown on request of a representative of the college.

Students are required to be in possession of their I.D. cards at all times and are prohibited to lend their I.D. cards to any other person for any reason. Likewise, it is prohibited to use any other card except the one issued by the college. On withdrawal from school, a student must return his I.D. card to the Registrar's Office.

AUTHORIZED USE OF FACILITIES

The College is a public facility entrusted to the Board of Trustees and college officials for the purpose of conducting the process of education. Activities which appear to be compatible with this purpose are approved by the college through a procedure maintained in the Student Development & Programs Office. Activities which appear to be incompatible or in opposition to the purpose of education are normally disapproved. It is imperative that a decision be made prior to an event in order to fulfill the trust of the public. No public facility can be turned over to the indiscriminate use of anyone for a platform or forum to promote random causes. Thus, reasonable controls are exercised by college officials of the use of facilities to ensure the maximum use of the College for the authorized purpose for which it was intended. Therefore, any one planning an activity at The College which requires space to handle two or more persons to conduct an activity must have prior approval. Application forms to reserve space must be submitted to the Office of Student Development. This office also maintains a statement on procedures for reserving space.

SPEECH AND ADVOCACY

Students have the right of free expression and advocacy; however, the time, place, and manner of exercising speech and advocacy shall be regulated in such manner to ensure orderly conduct, noninterference with college functions or activities, and identification of sponsoring groups or individuals.

Meetings must be registered with the Student Development & Programs Office. An activity may be called a meeting when the following conditions prevail at that activity:

a. When two or more persons are sitting, standing, or lounging so as to hear or see a presentation of discussion of a person or group of persons.

b. When any special effort to recruit an audience has preceded the beginning of discussions or presentations.

c. When a person or group of persons appear to be conducting a systematic discussion or presentation on a definable topic.

DISRUPTIVE ACTIVITIES

Any activity which interrupts the scheduled activities or processes of education may be classified as disruptive; thus, anyone who initiates in any way any gathering leading to disruptive activity will be violating college regulations and/or state law. (Sec. 4203 of the new Texas Penal Code, Revised 1/1/74.)

The following conditions shall normally be sufficient to classify behavior as disruptive:

a. Blocking or in any way interfering with access to any facility of the college.

b. Inciting others to violence and/or participating in violent behavior, i.e., assault, loud or vulgar language spoken publicly or any form of behavior acted out for the purpose of inciting and influencing others.

c. Holding rallies, demonstrations, or any other form of public gathering without prior approval of the College.

d. Conducting any activity which causes college officials to be drawn off their schedules to intervene, supervise, or observe the activities in the interest of maintaining order at the College.
Furthermore, the Vice President shall enforce the following college regulations as described in state law:

1. No person or groups of persons acting in concert may willfully engage in disruptive activity or disrupt a lawful assembly on the campus or property of any private or public school or institution of higher education or public vocational and technical school or institute.

2. a. For the purpose of this Act, "disrupting activity" means
   (I) Obstructing or restraining the passage of persons in an exit, entrance, or hallway of any building without the authorization of the administration of the School;
   (II) seizing control of any building or portion of a building for the purpose of interfering with any administrative, educational, research, or other authorized activity;
   (III) preventing or attempting to prevent by force or violence— or the threat of force or violence—any lawful assembly authorized by the school administration;
   (IV) disrupting by force or violence or the threat of force or violence a lawful assembly in progress; or
   (V) obstructing or restraining the passage of any person at the exit or entrance to said campus or property or preventing or attempting to prevent by force or violence or by threats thereof the ingress or egress of any person to or from said property or campus without the authorization of the administration of the School.

b. For the purpose of this Act, a lawful assembly is disrupted when any person in attendance is rendered incapable of participating in the assembly due to the use of force or violence or due to reasonable fear that force or violence is likely to occur.

3. A person who violates any provision of this Act is guilty of a misdemeanor and upon conviction is punishable by a fine not to exceed $200 or by confinement in jail for not less than 10 days nor more than 6 months, or both.

4. Any person who is convicted the third time of violating this Act shall not thereafter be eligible to attend any school, college, or university receiving funds from the State of Texas for a period of two years from such third conviction.

5. Nothing herein shall be construed to infringe upon any right of free speech or expression guaranteed by the Constitutions of the United States or the State of Texas.

**DRINKING OF ALCOHOLIC BEVERAGES**

The College specifically forbids the drinking of or possession of alcoholic beverages on its campus. Violation of this regulation leaves the student liable to disciplinary action by college authorities.

**GAMBLING**

State law expressly forbids gambling of any kind on State property. Gambling at The College will lead to disciplinary action.

**HAZING**

The College, as a matter of principle and because it is a violation of state law, is opposed to and will endeavor to prevent hazing activities which involve any of the following factors singly or in conjunction:

a. Any actions which seriously imperil the physical well-being of any student (all walks and all calisthenics are held to be actions which seriously imperil the physical well-being of students and are, therefore, accordingly specifically prohibited).
b. Activities which are by nature indecent, degrading, or morally offensive.

c. Activities which by their nature may reasonably be assumed to have a degrading effect upon the mental or moral attitude of the persons participating therein. Accordingly, any group or individual participating in hazing activities characterized by any or all of the above stated actions may expect disciplinary action to be taken against them.

The institutional policy is one discouraging all activities incompatible with the dignity of the college student and exercising disciplinary correction over such of these activities as escape from reasonable control, regulation, and decency. From the institution's point of view the responsibility for the control of hazing activities, if they are engaged by an organization, is squarely on the backs of the elected and responsible officials of the group, as individual, and of the group as a whole since it sets and approves the policy to be followed in these matters. It is accordingly recommended that all groups be informed that both their officers and the group itself will be held singularly and collectively responsible for any actions considered to be unreasonable, immoral, and irresponsible with the policy limits detailed above. Individual activity falling in this category shall be handled on an individual basis and will result in disciplinary action.

**CONDUCT EXPECTED OF STUDENTS**

The succeeding regulations describe offenses for which disciplinary proceeding may be initiated, but the College expects from its
students a higher standard of conduct than the minimum required to avoid discipline. The College expects all students to obey the law, to show respect for properly constituted authority, to perform contractual obligations, to maintain absolute integrity and a high standard of individual honor in scholastic work, and to observe standard of conduct appropriate for the community of scholars. In short, a student enrolled in the College assumes an obligation to conduct himself in a manner compatible with the College function as an educational institution.

SCHOLASTIC DISHONESTY

a. The Vice President may initiate disciplinary proceedings against a student accused of scholastic dishonesty.

b. "Scholastic dishonesty" includes, but is not limited to, cheating on a test, plagiarism and collusion.

c. "Cheating on a test" includes
1. copying from another student's test paper;
2. using during a test, materials not authorized by the person giving the test;
3. collaborating with another student during a test without authority;
4. knowingly using, buying, selling, stealing, transporting or soliciting in whole or part the contents of an unadministered test;
5. substituting for another student, or permitting another student to substitute for one's self to take a test; and
6. bribing another person to obtain an unadministered test or information about an unadministered test.

d. "Plagiarism" means the appropriation of another's work and the unacknowledged incorporation of that work in one's own written work offered for credit.

e. "Collusion" means the unauthorized collaboration with another person in preparing written work offered for credit.

FINANCIAL TRANSACTIONS
WITH THE COLLEGE

a. No student may refuse to pay or fail to pay a debt he owes to the college.
b. No student may give the College a check, draft or order with intent to defraud the College.
c. A student's failure to pay the College the amount due on a check, draft, or order on or before the fifth class day after the day the Business Office sends written notice that the drawee has rightfully refused payment on the check, draft or order is prima facie evidence the student intended to defraud the College.
d. The Vice President may initiate disciplinary proceedings against a student who has allegedly violated subsection a or b of this section.

CERTAIN OTHER OFFENSES

The Vice President may initiate disciplinary proceedings against a student who:
1. conducts himself in a manner that significantly interferes with College teaching, research, administration, disciplinary procedures or other College activities, including its public service functions, or of other authorized activities on College premises;
2. damages, defaces or destroys College property or property of a member of the College community or campus visitor;
3. knowingly gives false information in response to requests from the College;
4. engages in hazing, as defined by state law and College regulations;
5. forges, alters or misuses College documents, records, or I.D. cards;
6. violates College policies or regulations concerning parking, registration of student organizations, use of College facilities, or the time, place and manner of public expression;
7. fails to comply with directions of College officials acting in the performance of their duties;
8. conducts himself in a manner which adversely affects his suitability as a member of the academic community or endangers his own safety or the safety of others;
9. illegally possesses, uses, sells, or purchases drugs, narcotics, hallucinogens, or alcoholic beverages on or off campus;
10. commits any act which is classified as an indictable offense under either state or federal law.

STUDENTS WILL BE PLACED ON DISCIPLINARY PROBATION FOR ENGAGING IN ACTIVITIES SUCH AS THE FOLLOWING:
1. Being intoxicated
2. Misuse of I.D. card
3. Creating a disturbance in or on campus facilities
4. Gambling

STUDENTS WILL BE PLACED ON DISCIPLINARY SUSPENSION FOR ENGAGING IN ACTIVITIES SUCH AS THE FOLLOWING:
1. Having intoxicating beverages in any College facilities.
2. Destroying state property or student's personal property.
3. Giving false information in response to requests from the College
4. Instigating a disturbance or riot.
5. Stealing.
6. Possession, use, sale, or purchase of illegal drugs on or off campus.

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7. Any attempt at bodily harm. This includes taking an overdose of pills or any other act where emergency medical attention is required.

ANY ACT WHICH IS CLASSIFIED AS A MISDEMEANOR OR FELONY UNDER STATE OR FEDERAL LAW WILL BE SUBJECT TO DISCIPLINARY ACTION.

The extreme form of disciplinary action is "EXPULSION," or permanent severance from the College. Because of the serious nature of discipline and conduct standards at North Lake College, all students are strongly advised to read the following STUDENT DISCIPLINE AND CONDUCT CODE.

STUDENT DISCIPLINE AND CONDUCT CODE

Chapter 1-100
General Provisions

Sec. 101 Purpose

(A) A student at The College neither loses the rights nor escapes the responsibilities of citizenship. He is expected to obey both the penal and civil statutes of the State of Texas and the federal government and the Board of Trustees policies, college regulations and administrative rules. He may be penalized by the college for violating its standards of conduct even though he is also punished by the state or federal authorities for the same act.

(B) This code contains regulations for dealing with alleged student violations of college standards of conduct in a manner consistent with the requirements of procedural due process. It also contains descriptions of the standards of conduct to which students must adhere and the penalties which may be imposed for the violation of those standards.

Sec. 102. Application

(A) This code applies to individual students and states the function of student, faculty, and administrative staff members of the college in disciplinary proceedings.

(B) The college has jurisdiction for disciplinary purposes over a person who was a student at the time he allegedly violated a Board policy, college regulation, or administrative rule.

Sec. 103. Definitions

In this code, unless the context requires a different meaning:

1. "class day" means a day on which classes before and after summer session final examinations are regularly scheduled or on which semester or summer session final examinations are given;

2. "Dean" means the Vice President of Instruction & Student Development or the Vice President of Instruction & Community Development, his delegate(s) or his representative(s);

3. "Director of Student Development & Programs" means the Director of Student Development & Programs, his delegate(s) or his representative(s);

4. "Director of Campus Security" means the Director of Campus Security, his delegate(s) or his representative(s);

5. "President" means the President of The College;

6. "Student" means a person enrolled at the college or a person accepted for admission to the college;

7. All Vice President associate deans, assistant deans, directors, or his division chairmen of the college for the purposes of this handbook shall be called "Administrators";

8. "complaint" is a written summary of the essential facts constituting a violation of a Board policy, college regulation, or administrative rule;

9. "Board" means the Board of Trustees, Dallas County Community College District;

10. "Chancellor" means the Chancellor of the Dallas County Community College District;

11. "major violation" means one which can result in suspension or expulsion from the College or denial of degree;

12. "Minor violation" means one which can result in any disciplinary action other than suspension or expulsion from the college or denial of degree.

Chapter 2-200
Initiation of Disciplinary Proceedings and Administrative Disposition

Sec. 201. Investigation

(A) When the Dean's Office receives information that a student has allegedly violated a Board rule, college regulation, or administrative rule, the Dean or his delegate shall investigate the alleged violation. After completing the preliminary investigation, the Dean may:

(1) dismiss the allegation as unfounded; or
(2) summon the student for a conference for a determination of the severity of the allegations and, after conferring with the student, either dismiss the allegation or
(a) proceed administratively under Section 203 if it is determined that the alleged violation is a minor violation and if the facts are not in dispute;
(b) proceed administratively under Section 204 if it is determined that the alleged violation is a major violation, or
(c) prepare a complaint based on the allegation for use in disciplinary hearings along with a list of witnesses and documentary evidence supporting the allegation.
Sec. 204. Administrative Disposition

(A) The Dean may administratively dispose of any violation that he determines is a minor violation, if

(1) It is in the best interest of the college and the student concerned; and

(2) The student concerned consents in writing to administrative disposition.

(B) At a conference with a student in connection with an alleged major violation the Dean shall advise the student of his right (a) to a private hearing (b) to appear alone or with legal counsel (if charges have been evaluated as a major violation) (c) to have his parents or legal guardian present at the hearing (d) to know the identity of each witness who will testify against him at the hearing (e) to summon witnesses, require the production of documentary and other evidence possessed by the college and offer evidence and argue in his own behalf. (f) to have a stenographer present at the hearing to make a stenographic transcript of the hearing, at the student's expense, but the student is not permitted to record the hearing by electronic means (g) to appeal to the Faculty-Student Board of Review with the limits established by Sec. 401 (A) (h) to appeal to the Faculty-Student Board of Review with the limits established by Sec. 401 (A)

(E) The Dean shall prepare an accurate, written summary of each administrative disposition of a major violation and forward copies of the student, to the parents or guardian of an unmarried student under 18 years of age, to the Director of Student Development & Programs, and to the Director of Campus Security.

Chapter 3-300

Hearing

Sec. 301. Student Discipline Committee

(A) When a student refuses administrative disposition of either a major or a minor violation, he is entitled to a hearing before the Student Discipline Committee. This request must be made in writing on or before the third day following the administrative disposition authorized under Sec. 203 and Sec. 204. The committee shall be composed of any three administrative officers of the college. The committee shall be appointed by the President for each hearing on a rotating basis or on a basis of availability.

(B) The Student Discipline Committee shall elect a chairman from the three appointed members. The chairman of the committee shall rule on the admissibility of evidence, motions, and objections to procedures, but a majority of the members of the committee may overrule the chairman's ruling. All members of the committee are eligible to vote in the hearing.

(C) The Dean shall set the date, time, and place for the hearing and notify the student defendant of the date, time, and place. He shall also summon witnesses and require the production of documentary and other evidence.

(D) The Dean shall represent the college before the Student Discipline Committee and present evidence to support any allegations of violations of Board policy, college regulation, or administrative rules. The Dean may be assisted by legal counsel when in the opinion of the Dean the best interests of the student or the college would be served by such assistance.

Sec. 302. Notice

(A) The Dean shall notify the student concerned by letter of the date, time, and place of the hearing. The letter shall specify whether the charge or charges are considered major or minor violations.

(B) The Dean shall set the date, time, and place for the hearing before the Student Discipline Committee. This request must be made in writing on or before the third day following the administrative disposition authorized under Sec. 203 and Sec. 204. The committee shall be composed of any three administrative officers of the college. The committee shall be appointed by the President for each hearing on a rotating basis or on a basis of availability.

(C) The Student Discipline Committee shall elect a chairman from the three appointed members. The chairman of the committee shall rule on the admissibility of evidence, motions, and objections to procedures, but a majority of the members of the committee may overrule the chairman's ruling. All members of the committee are eligible to vote in the hearing.

(D) The Dean shall set the date, time, and place for the hearing and notify the student defendant of the date, time, and place. He shall also summon witnesses and require the production of documentary and other evidence.

(E) The Dean shall represent the college before the Student Discipline Committee and present evidence to support any allegations of violations of Board policy, college regulation, or administrative rules. The Dean may be assisted by legal counsel when in the opinion of the Dean the best interests of the student or the college would be served by such assistance.

Sec. 303. Notice

(A) The Dean shall notify the student concerned by letter of the date, time, and place of the hearing. The letter shall specify the hearing date and time and place of the hearing.

(B) The Dean shall set the date, time, and place for the hearing before the Student Discipline Committee. This request must be made in writing on or before the third day following the administrative disposition authorized under Sec. 203 and Sec. 204. The committee shall be composed of any three administrative officers of the college. The committee shall be appointed by the President for each hearing on a rotating basis or on a basis of availability.

(C) The Student Discipline Committee shall elect a chairman from the three appointed members. The chairman of the committee shall rule on the admissibility of evidence, motions, and objections to procedures, but a majority of the members of the committee may overrule the chairman's ruling. All members of the committee are eligible to vote in the hearing.

(D) The Dean shall set the date, time, and place for the hearing and notify the student defendant of the date, time, and place. He shall also summon witnesses and require the production of documentary and other evidence.

(E) The Dean shall represent the college before the Student Discipline Committee and present evidence to support any allegations of violations of Board policy, college regulation, or administrative rules. The Dean may be assisted by legal counsel when in the opinion of the Dean the best interests of the student or the college would be served by such assistance.

Sec. 304. Notice

(A) The Dean shall notify the student concerned by letter of the date, time, and place of the hearing. The letter shall specify the hearing date and time and place of the hearing.

(B) The Dean shall set the date, time, and place for the hearing before the Student Discipline Committee. This request must be made in writing on or before the third day following the administrative disposition authorized under Sec. 203 and Sec. 204. The committee shall be composed of any three administrative officers of the college. The committee shall be appointed by the President for each hearing on a rotating basis or on a basis of availability.

(C) The Student Discipline Committee shall elect a chairman from the three appointed members. The chairman of the committee shall rule on the admissibility of evidence, motions, and objections to procedures, but a majority of the members of the committee may overrule the chairman's ruling. All members of the committee are eligible to vote in the hearing.

(D) The Dean shall set the date, time, and place for the hearing and notify the student defendant of the date, time, and place. He shall also summon witnesses and require the production of documentary and other evidence.

(E) The Dean shall represent the college before the Student Discipline Committee and present evidence to support any allegations of violations of Board policy, college regulation, or administrative rules. The Dean may be assisted by legal counsel when in the opinion of the Dean the best interests of the student or the college would be served by such assistance.

Sec. 305. Notice

(A) The Dean shall notify the student concerned by letter of the date, time, and place of the hearing. The letter shall specify the hearing date and time and place of the hearing.

(B) The Dean shall set the date, time, and place for the hearing before the Student Discipline Committee. This request must be made in writing on or before the third day following the administrative disposition authorized under Sec. 203 and Sec. 204. The committee shall be composed of any three administrative officers of the college. The committee shall be appointed by the President for each hearing on a rotating basis or on a basis of availability.

(C) The Student Discipline Committee shall elect a chairman from the three appointed members. The chairman of the committee shall rule on the admissibility of evidence, motions, and objections to procedures, but a majority of the members of the committee may overrule the chairman's ruling. All members of the committee are eligible to vote in the hearing.

(D) The Dean shall set the date, time, and place for the hearing and notify the student defendant of the date, time, and place. He shall also summon witnesses and require the production of documentary and other evidence.

(E) The Dean shall represent the college before the Student Discipline Committee and present evidence to support any allegations of violations of Board policy, college regulation, or administrative rules. The Dean may be assisted by legal counsel when in the opinion of the Dean the best interests of the student or the college would be served by such assistance.

Sec. 306. Notice

(A) The Dean shall notify the student concerned by letter of the date, time, and place of the hearing. The letter shall specify the hearing date and time and place of the hearing.

(B) The Dean shall set the date, time, and place for the hearing before the Student Discipline Committee. This request must be made in writing on or before the third day following the administrative disposition authorized under Sec. 203 and Sec. 204. The committee shall be composed of any three administrative officers of the college. The committee shall be appointed by the President for each hearing on a rotating basis or on a basis of availability.

(C) The Student Discipline Committee shall elect a chairman from the three appointed members. The chairman of the committee shall rule on the admissibility of evidence, motions, and objections to procedures, but a majority of the members of the committee may overrule the chairman's ruling. All members of the committee are eligible to vote in the hearing.

(D) The Dean shall set the date, time, and place for the hearing and notify the student defendant of the date, time, and place. He shall also summon witnesses and require the production of documentary and other evidence.

(E) The Dean shall represent the college before the Student Discipline Committee and present evidence to support any allegations of violations of Board policy, college regulation, or administrative rules. The Dean may be assisted by legal counsel when in the opinion of the Dean the best interests of the student or the college would be served by such assistance.
Sec. 303. Preliminary Matters

(A) Charges arising out of a single transaction or occurrence, against one or more students, may be heard together or, either at the option of the committee or upon request by one of the students-in-interest, separate hearings may be held.

(B) At least three class days before the hearing date, the student concerned shall furnish the committee chairman with:

1. The name of each witness he wants summoned and other evidence possessed by the college which he wants presented;
2. An objection that, if sustained by the chairman of the Student Disciplinary Committee, would prevent the hearing;
3. The name of legal counsel, if any, who will appear with him;
4. A request for a separate hearing, if any, and the grounds for such request.

(C) When the hearing is set under Section 302 (C), or for other good cause determined by the committee chairman, the student concerned is entitled to furnish the information described in Section 303 (B) at any time before the hearing begins.

Sec. 304. Procedure

(A) The hearing shall be informal and the chairman shall provide reasonable opportunities for witnesses to be heard. The college may be represented by staff members of the Dean's Office, legal counsel and other persons designated by the Dean. The hearing shall be open to the public so long as there is available, but may include the following persons on the invitation of the student:

1. Representatives of the student members of Campus Commissions;
2. A staff member of the student newspaper;
3. Representatives of the Faculty Association;
4. Legal counsel;
5. Members of the student's immediate family.

(B) The committee shall proceed generally as follows during the hearing:

1. The Dean reads the complaint;
2. The Dean informs the student of his rights under Section 302;
3. The Dean presents the college's case;
4. The student presents his defense;
5. The Dean and the student present rebuttal evidence and argument;
6. The committee will vote the issue of whether or not there has been a violation of Board rule, college regulation, or administrative rule; if the committee finds the student has violated a Board rule, the committee will determine an appropriate penalty; and, if the committee finds the student has violated a Board rule, college regulation or administrative rule, the penalty determined.

(C) The committee shall determine, upon request by one of the students-in-interest, the information described in Section 304 (A) and any time before the hearing begins.

Sec. 305. Evidence

(A) Legal rules of evidence do not apply to hearings before the Student Disciplinary Committee and the committee may admit and give probative effect to evidence that possesses probative value and is commonly accepted by reasonable men in the conduct of their affairs. The committee shall recognize as privileged communications between a student and a professional staff of the Health Center, Counseling and Guidance Center, or the office of the Dean where such communications were made in the course of performance of official duties and when the matters discussed were understood by the staff member and the student to be confidential. Committee members may freely question witnesses.

(B) The committee shall presume a student innocent of the alleged violation until it is convinced by clear and convincing evidence that the student violated a Board rule, college regulation, or administrative rule.

(C) All evidence shall be offered to the committee during the hearing record. Documentary evidence may be admitted in the form of copies or extracts, or by incorporation by reference. Real evidence may be photographed or described.

(D) A student defendant may not be compelled to testify against himself.

Sec. 306. Record

(A) The hearing record shall include:

1. A copy of the notice required under Section 302.
2. All documentary and other evidence offered or admitted into the hearing record.
3. Written motions, plead, and other materials considered by the committee.
4. The committee's decisions.

(B) When notice of appeal is timely given as provided in Section 401 (A), the Dean, at the direction of the appeal committee's chairman, shall send the record to the appeal committee, with a copy to the student's appellant, or before the thirtieth day after the notice of appeal is given.

Chapter 4-400

Appeal

Sec. 401. Right to Appeal to Faculty-Student Board of Review

(A) In those cases in which the disciplinary penalty imposed was authorized under Section 501 (A) 6, 7, 8, 9, 10, or 11, the student may appeal the decision of the Student Discipline Committee, or the decision of the President in an interchal action authorized under Section 401 (B) to the Faculty-Student Board of Review. Disciplinary actions taken under Section 501 (A) 1, 2, 3, 4, or 5 cannot be appealed beyond the Student Discipline Committee.

(B) A student may appeal by giving written notice to the Dean on or before the third class day after the day the decision is announced. The notice is informal, but shall contain the student's name and address, the date of the decision, and the name of his legal counsel, if any, and a simple request for appeal.

(C) Notice of appeal timely given under Section 401 (A) suspends the imposition of penalty until the appeal is finally decided, but interim action may be taken as authorized under Section 401 (B).

Sec. 402. Faculty-Student Board of Review

(A) The President shall appoint boards of review to hear appeals under this chapter. Each such board shall have three faculty representatives and two student representatives, as recommended by the Faculty and appointed by the President of the College for three-year staggered terms.

(B) Ten students from the total student body recommended by the student members of the Campus Commissions and appointed by the President of the College for one-year terms. Students nominated must have an overall C average on all college work attempted at the time of the nomination and must not have a disciplinary case pending.

(C) The President shall instruct the Faculty-Student Board of Review members on student disciplinary policies, rules, and hearing procedures as soon as practicable after the members are appointed.

Sec. 403. Consideration of Appeal

(A) The Faculty-Student Board of Review shall consider each appeal made under Section 401 on the Student Discipline Committee and for good cause shown, original evidence and newly discovered evidence may be presented.

(B) At the student appellant's timely request, the President shall appoint an ad hoc Board of Review under the provisions of Section 402 (A); and notify the student appellant and Dean in writing of the time, date, and place of the hearing determined by the President.

(C) The President will designate one of the members of the ad hoc Board of Review to serve as Chairman.

(D) The ad hoc Board of Review will follow the same procedures as described in Section 304 (A) and (B).

(E) The ad hoc Board of Review will hear oral arguments, and receive written briefs from the student appellant and Dean or their representatives.

(F) The Board of Review after considering the appeal may:

1. Affirm the Student Discipline Committee's decision.
2. Reduce the penalty determined or otherwise modify the decision of the Student Discipline Committee.
3. Dismiss the complaint.
Sec. 501. Authorized Disciplinary Penalties

The Dean, under Section 203 and 204, or the Student Discipline Committee, under Section 203, or the Faculty-Student Board of Review, under Section 203, may impose one or more of the following penalties for violation of a Board rule, college regulation, or administrative rule:

(1) Admission
(2) Warning Probation
(3) Disciplinary Probation
(4) Withholding of transcript or degree
(5) Bar against readmission
(6) Restitution
(7) Suspension of rights or privileges
(8) Suspension of eligibility for official athletic and non-athletic extracurricular activities
(9) Denial of degree
(10) Suspension from the College
(11) Expulsion from the College

The following definitions apply to the penalties provided in Section 501 (A):

(A) Admission is a reprimand from the Dean to the student on whom it is imposed.
(B) Warning Probation indicates that further violations of regulations will result in more disciplinary action. Warning probation may be imposed for any length of time up to one calendar year, and the student shall be automatically removed from probation when the imposed period expires.
(C) Disciplinary Probation indicates that further violations will result in suspension. Disciplinary probation may be imposed for any length of time up to one calendar year and the student shall be automatically removed from probation when the imposed period expires.
(D) Withholding of transcript or degree may be imposed for any length of time to and including permanent denial.
(E) Suspension of rights and privileges is an elastic penalty which may impose limitations or restrictions to fit the particular case.
(F) Suspension of eligibility for official athletic and non-athletic extracurricular activities prohibits, during the period of suspension, the student on whom it is imposed from joining a registered student organization, taking part in a registered student organization’s activities, or attending its meetings or functions; and from participating in an official athletic or non-athletic extracurricular activity. Such suspension may be imposed for any length of time up to one calendar year.
(G) Denial of degree may be imposed on a student found guilty of scholastic dishonesty and may be imposed for any length of time to and including permanent denial.

Sec. 404. Petition for Administrative Review

(A) A student is entitled to appeal in writing to the Board of Trustees through the President, the Chancellor, and the Chairman of the Board. The President shall automatically review every petition of expulsion. 
(B) A petition for review is informal but shall contain, in addition to the information required by Section 401 (A), notice of appeal, date of the action on the appeal, and his reason for disagreeing with the Board’s action. A student shall file his petition with the President on or before the third day after the day the ad hoc Board of Review announces its action on the appeal. If the President rejects the petition and the student requests a hearing, the Chancellor shall file the petition with the Chancellor, who shall inform the student that he may file another petition with the President. If the President rejects the petition, he shall file the petition with the Chancellor, who shall inform the student that he may file another petition with the President. If the President rejects the petition in writing, the Chancellor shall file the petition with the President and the student shall receive the petition in writing.
(C) The President, the Chancellor, and the Board of Trustees may take any action that the student discipline Committee is authorized to take by Section 404 (B). They may receive written briefs and hear oral argument during their review.

THIS POLICY APPLIES UNIFORMLY TO ALL OF THE COLLEGES OF THE DALLAS COUNTY COMMUNITY COLLEGE DISTRICT. IN THE EVENT ANY PORTION OF THIS POLICY CONFLICTS WITH THE STATE LAW OF TEXAS, THE STATE LAW SHALL BE FOLLOWED.

PARKING AND TRAFFIC CODE

Restricted Parking Areas

These reserved areas are designated by signs; all other parking areas are open and are non-reserved.

1. Handicapped persons
2. Motorcycles

Tow Away Areas (7 AM-10 PM)

1. Handicapped persons area
2. Fire Lanes
3. Parking or driving on campus in areas other than those designated for vehicular traffic
4. Parking in "No Parking" zone
5. Parking on courtyards

GENERAL INFORMATION

1. College parking areas are regulated by state, municipal and campus statutes. College campus officers are commissioned to cite violators.
2. All vehicles which park on the campus of the College must bear a parking decal emblem. The Parking decal may be secured from the College Security Division (Room W-135) or during fall and spring registration periods. No fee is charged for the decal.
3. Placement of Decal Emblem:
   a. Cars: Lower left corner of rear bumper.
   b. Convertibles and Trucks: Lower left corner of front bumper.
   c. Motorcycles, Motor Bikes, etc.: Gas tank.

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4. Campus Speed Limits:
   a. 10 M.P.H. in parking areas.
   b. 20 M.P.H. elsewhere on campus.
* Unless otherwise posted.
5. All handicapped parking must be authorized by Health Center Nurse (E-01) and handicapped decal displayed on vehicle prior to parking in handicapped reserved area.

CAMPUS PARKING AND DRIVING REGULATIONS

1. The Colleges, acting by and through their Board of Trustees, are authorized by state law to promulgate, adopt and enforce campus parking and driving regulations. Campus officers are commissioned police officers; and as such, all traffic and criminal violations are within their jurisdiction.

2. The College has authority for the issuance and use of suitable vehicle identification insignia as permits to park and drive on campus. Permits may be suspended for the violation of campus parking and driving regulations.

3. The College campus officers have the authority to issue and use traffic tickets and summonses of type now used by the Texas Highway Patrol. It is the general policy to issue these tickets for violations by visitors and persons holding no college permit. (Senate Bill 162, Section 6). These tickets are returnable to the Justice of the Peace Court in which the college is located. Furthermore the campus officers are authorized to issue campus tickets which are returnable to the Safety or Security Division at the Business Office.

4. Under the direction of the College President, the Safety or Security Division shall post proper traffic and parking signs.

5. Each student shall file an application for a parking permit with the Security Office upon forms prescribed by the college.

6. These traffic regulations apply not only to automobiles but to motorbikes, motorcycles and ordinary bicycles.

PROCEDURES

1. All motor vehicles must be parked in the parking lots between the parking lines. Parking in all other areas, such as campus drives, curb areas, courtyards, and loading zones, will be cited.

2. Citations may be issued for:
   a. Speeding (the campus speed limit is 20 M.P.H. except where posted)
   b. Reckless driving
   c. Double parking
   d. Driving wrong way in one-way lane
   e. Parking in "No Parking" lane
   f. Improper parking (parts of car outside the limits of a parking space)
   g. Parking on wrong area (for example, handicapped or "No Parking" areas)
   h. Parking trailers or boats on campus
   i. Parking or driving on campus in areas other than those designated for vehicular traffic.
   j. Violations of all state statutes regulating vehicular traffic
   k. Failure to display parking permit
   l. Collision with another vehicle or any sign or immovable object

3. A citation is notice that a student's parking permit has been suspended. The service charge to reinstate the parking and driving permit must be paid at the Business Office. Failure to pay the service charge will result in the impoundment of a vehicle that is parked on campus and whose decal has been suspended.

4. A person who receives a campus citation shall have the right within ten days to appeal in writing to the Safety Committee, accompanied by whatever reason the person feels that the citation should not have been issued. The Safety Committee will be composed of at least three members appointed by College President. No Security Officer shall serve on this committee. Contact the Business Office regarding the committee's meeting times and dates.

5. If it becomes necessary to remove an improperly parked vehicle, an independent wrecker operator may be called. The owner of the vehicle will be charged the wrecker fee in addition to the service charge for reinstatement of driving and parking privileges.

6. Visitors to campus are also required to follow college regulations.

7. The service charge for reinstatement of the parking and driving permit will be $2.00 per citation.

8. Four citations per car during an academic year will result in permanent suspension of parking and driving permit for the balance of that academic year. A new total commences on August 1 of each year.

9. The College is not responsible for the theft of vehicles on campus or their contents.
The North Lake Philosophy

North Lake College operates under the philosophy that each individual is unique, and must function in an ever-changing society whose members are becoming increasingly dependent on one another. This philosophy presents three major challenges to education. To comply with the uniqueness of individuals, the college must offer alternative modes of instruction to insure maximum learning for each and every student. Secondly, students must be taught flexibility in order to adjust to society's rapid changes. Thirdly, beyond work skills, a student must develop skills in effective interpersonal relations.

The purpose of North Lake College is to provide all students with the learning experiences that meet these needs. These learning experiences will be in keeping with every student's personal interests and abilities as he/she moves toward his/her own educational goals. This purpose will be accomplished through effective career planning with guidance from a competent counseling staff and the alternative modes of learning provided by a faculty dedicated to helping all students achieve their maximum potential in becoming well-adjusted, productive citizens.
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