1993 - 1994
Catalog
Located at
I-85 and New Cut Road
Spartanburg, SC

(803) 591-3600
P.O. Box 4386
Spartanburg, SC 29305-4386
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Non-Discrimination Statement
Spartanburg Technical College does not discriminate on the basis of race, color, religion, age, sex, national origin/ethnic origin, or disability in its admissions policies, programs, activities or employment practices.

Note
Failure to read this publication does not excuse students from the rules and procedures described herein. Personal factor, illness, or contradictory advice from any source is not acceptable grounds for seeking exemption from these rules and procedures. Spartanburg Technical College reserves the privilege of changing, without notice, any information in this catalog.

Consumer Information: Information on costs, refunds, financial assistance, student eligibility, academic programs, etc., may be obtained by writing the Office of the Dean of Students at Spartanburg Technical College. Catalog contents are subject to change.

1993-94 CALENDAR

FALL TERM

August 17,18  Curriculum Registration
August 23  Classes begin
September 6  Labor Day (College Closed)
November 25,26  Thanksgiving Holidays (College Closed)
December 10, 13, 14,15  Final Exams
December 20 - January 1  Christmas Holidays (College Closed)**

SPRING TERM

January 5  Curriculum Registration
January 10  Classes begin
April 4 - 8  Spring Break (No Classes)**
May 4 - 6, 9  Final Exams

SUMMER TERM

May 12  Curriculum Registration
May 16  Classes begin
June 27 - July 8  Summer Break (No Classes)
August 1 - 4  Final Exams

Please note: These dates are subject to change in the case of extenuating circumstances, such as inclement weather.

* *Christmas and Spring Holidays will follow the same schedule as the public schools.*
Administration

Spartanburg Technical College Administration

Jack A. Powers .............................................. President
Roland DuBay .............................................. Director for Development
Henry C. Giles, Jr. ........................................... Vice President, Academic Affairs
Ralph D. Waddell, Jr. ....................................... Vice President, Business Affairs
JoEllen Cantrell ............................................ Dean, Student Services
Fred P. Herren .............................................. Dean, Industry & Business Training/Continuing Ed.

S.C. State Board for Technical & Comprehensive Education

Col. Eugene D. Foxworth, Jr. ....................... 1st Congressional District
Cathy B. Novinger ........................................ 2nd Congressional District
P. Henderson Barnett, Chairman ................... 3rd Congressional District
Robert H. Chapman, III ............................... 4th Congressional District
Clarence H. Hornsby, Jr., Vice Chairman ....... 5th Congressional District
Russell C. King, Jr. ...................................... 6th Congressional District
Oscar E. Prioleau ........................................ Member at Large
Thomas L. Gregory ...................................... Member at Large
Maj. Gen. James A. Grimsley, Jr. .................. Member at Large

Ex-Officio

Barbara Nielsen ........................................ State Superintendent of Education
Wayne L. Sterling ....................................... Director, State Development Board
James R. Morris, Jr. ................................ Executive Director

Spartanburg County Commission for Technical Education

School District

No. 1            B. Frank Carruth ......................... Term expires 1993
No. 2            W. Erskine Kirksey .................. Term expires 1995
No. 3            Darwin W. Keller ..................... Term expires 1996
No. 4            Terry D. Simmons ..................... Term expires 1993
No. 5            Marvin B. Banton ...................... Term expires 1996
No. 6            Prelo M. Hood ......................... Term expires 1993
No. 7            Blas A. Miyares, Vice Chairman ....... Term expires 1995
No. 7            Benjamin D. Snoddy .................... Term expires 1996

Ex-Officio

James A. Littlefield
Albert B. Jolly, Jr.

At Large

L. Odell Bragg, Secretary ......................... Term expires 1993
Gladys McLeod .......................................... Term expires 1995
Charles R. Sanders, Chairman .................... Term expires 1995
The College

Spartanburg Technical College, an institution of the South Carolina Technical Education System, provides a broad scope of instructional programs which include certificate, diploma, degree, and occupational advancement courses. Spartanburg Technical College, accredited by the Southern Association of Colleges and Schools, is an open access college serving the adult population of Spartanburg, Cherokee, and Union Counties.

QUALITY STATEMENT

Spartanburg Technical College is dedicated to providing instruction and support services at a level of quality which will prepare students for employment, personal development and professional growth. Each College Division (Academic Affairs, Industry & Business Training/Continuing Education, Student Services, Development, Business Affairs, and Administrative Support) will provide precise, prompt, and courteous services and instruction to our students, to one another, and to the employers who hire our graduates and use our services.

QUALITY MOTTO

Quality Education for Quality Careers

PHILOSOPHY

People are our most important resource. Area employers and our students are our highest priority. Our responsibility is to provide quality technical programs and support services which enable people to have a lifetime of employability and fulfillment.

MISSION

Spartanburg Technical College is a comprehensive two-year college dedicated to the promotion of the area's economic development. Through effective, accessible, affordable, high quality services and instructional programs, the college prepares students to enter the job market, allows them to transfer to senior colleges and universities, and assists them in achieving their professional and personal goals.

ROLE AND SCOPE

The college seeks to implement its mission through a clearly defined set of programs and services, including:

College-Level Credit Programs. The college offers credit programs leading to associate degrees, diplomas, and certificates in technical and occupational fields. The college also offers associate of arts and associate of science degree programs for transfer to four-year colleges.
The College

Continuing Education Programs. The college provides professional occupational development to individuals, business, government, health agencies, and industry. The college also offers a variety of non-credit activities for personal enhancement.

Student Development Services. The college offers developmental services which guide students and prospective students in their selection of career paths, assist them in the transition into higher education, maximize their chances for success, and enhance their potential for personal and educational growth.

Economic Development Programs. The college promotes the economic development of the region through close cooperation with area business and industry. Programs include training for both new and existing businesses and industries.

Access and Equity Services. The college provides special recruitment, counseling and evaluation services which increase access and equity for minority students, sensory impaired students, and other students not historically served by higher education. The college assists underprepared students in developing skills necessary to enter college-level programs.

ACCREDITATION

Spartanburg Technical College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees.

Spartanburg Tech also has programs accredited by the Technology Accreditation Commission of the Accreditation Board of Engineering and Technology, Inc., the Committee for Allied Health Education and Accreditation of the American Medical Association, and the Council on Education of the American Dental Association.

HISTORICAL STATEMENT

By an act of the Legislature of the State of South Carolina in May, 1961, an extensive program of technical training was made possible through the establishment of regional Technical Education Centers.

In 1962, Spartanburg County Technical Education Center opened its doors to students who began training to meet the needs of a new industry. These students attended classes in temporary rented quarters for one year.

The original building, completed in May, 1963, consisted of well-equipped laboratories, large classrooms, modern shops, and offices. In September, 1963, the first classes met in these permanent facilities.
The College

A variety of educational opportunities was offered to students, primarily in the fields of engineering technologies and industrial training. Since 1963, courses emphasizing business, health occupations, textiles, horticulture, and general education have been added.

Additional laboratories, offices, shops, and a Student Center were added to the original building during the 1967-68 school year. The Industry and Business Training/Continuing Education Office is presently located in this building, as well as the Industrial Division.

In March, 1969, the West Building was completed. This facility included a library wing capable of housing over 25,000 volumes, additional classrooms, laboratories, offices, and a computer complex.

The next building addition was completed September, 1973. This construction included an Engineering Technologies wing added to the West Building, which allowed an increase in size of the industrial shops in the East Building.

In 1974, the Training Center became Spartanburg Technical College.

Two additions to the college campus were completed in Fall, 1980. The Tracy J. Gaines Learning Resource Center consists of 32,000 square feet and houses the library, media center, bookstore, shipping and receiving, several classrooms, conference rooms, and a 300 seat auditorium. The Industrial Training Facility contains 20,000 square feet and houses the Welding program.

In 1983, the College purchased the James P. Ledbetter, Jr. Administration Building, a 44,000 square feet building on 8 acres adjacent to the College. The Student Services Division, Management Information Services, and the College's Business Offices are on the ground floor. The Engineering Technology Division, Administrative Offices, Technical Scholars, and several conference rooms are located on the second floor of the Ledbetter Building.

Spartanburg Technical College has enjoyed tremendous growth during its twenty-six year history. The institution has acquired a total of 104 acres of land located on Interstate Highway 85, South. It has grown from a 50,470 to a 264,201 total square feet complex, and has served more than 150,000 area citizens through training in Spartanburg Tech's many programs.

The library facilities were designed to shelve over 35,000 volumes. Individual study carrels and a conference room are available for library use. Over 11,616 square feet of floor space are allocated to library functions.

The library subscribes to over 560 periodicals and daily newspapers. A balanced collection of books, including general works in addition to technical and professional, is maintained. A reference collection is included.
The College

CAREER PROGRAMS

Associate Degree in Arts

Associate Degree in Science

Associate Degree in Business Technology:
  Accounting
  Management
  Marketing
  Office Systems Technology

Associate Degree in Computer Technology:
  Computer Technology

Associate Degree in Engineering Technology:
  Civil Engineering Technology
  Electronics Engineering Technology
  Electronics Engineering Technology
  Technical Scholars Option
  Engineering Graphics Technology
  Mechanical Drafting Option
  Engineering Graphics Technology
  Architectural Drafting Option
  General Engineering Technology
  Mechanical Engineering Technology
  Mechanical Engineering Technology
  Technical Scholars Option
  Textile Management Technology

Associate Degree in Health Sciences:
  Medical Laboratory Technology
  Medical Secretarial Science
  Radiologic Technology
  Respiratory Therapy

Associate Degree in Agricultural Technology:
  Horticulture Technology

Associate Degree in Industrial Technology:
  Automotive Technology
  Ford ASSET Option
  Heating, Ventilation, and Air Conditioning Technology
  Industrial Electronics Technology
  Industrial Electronics Technology
  Automated Manufacturing Technology Option
  Automated Manufacturing Technology
  Technical Scholars Option
The College

Machine Tool Technology
Nuclear Service Technology

Associate Degree in Occupational Technology:
  General Technology

Associate Degree in Public Service
  Interpreter Training

Diploma Programs:
  Automated Office
  Early Childhood Development
  Computer Operations
  Dental Assisting
  Industrial Mechanics
  Practical Nursing
  Respiratory Therapy Technician
  Surgical Technology
  Welding

Certificate Programs:
  Automotive Mechanics (Basic)
  Advanced Automotive Mechanics I
  Advanced Automotive Mechanics II
  Air Conditioning and Refrigeration
  Architectural Computer Aided Drafting
  Basic Electronics
  Computer Numerical Control Operator
  Developmental Disabilities Specialist
  Gerontology Specialist
  Health Sciences
  Landscape Management
  Mechanical Computer Aided Drafting
  Quality Assurance
  Ward Secretary
  Welding

EVENING SERVICES

Evening Services is the administrative arm of the College during the evening hours. Refer to the outlines of study for technical programs for courses that are taught during the evening. The evening classes are generally scheduled from 6:00 p.m. until 10:35 p.m., Monday through Thursday. Generally, all support services of the College are available to those students desiring to attend during the evening hours. Additional course information is available for continuing education programs. For more information, call 591-3900 or 591-3831.
The Transitional Studies Division offers a variety of courses designed to enhance students' academic abilities. Most of the courses in Transitional Studies are basic skills courses in grammar, writing, reading and mathematics. Other course offerings in the division include "bridging" courses and pre-entry courses. In addition, Transitional Studies supports all students and faculty through the services of the Testing Center and Writing Center.

**BASIC SKILLS COURSES**

Transitional Studies Basic Skills courses are offered both day and evening. Most of these classes are taught in an individualized, self-paced format which enables the students to proceed at their own pace using a variety of programmed instructional materials. Basic skills courses (zero-level) carry institutional credit but cannot be used to satisfy program requirements for graduation. The zero-level course numbers do not indicate levels of difficulty.

DEVELOPMENTAL ENGLISH (ENG 001-099) is a grammar and sentence skills course designed for students who need assistance in basic writing. Exit criteria for this course include demonstrating control of mechanics, word usage, and sentence structure.

ENGLISH AS A SECOND LANGUAGE (ESL 001-099) is a grammar and sentence skills course designed for students whose first language is other than English. This course primarily serves to provide instruction to hearing impaired and other special populations.

DEVELOPMENTAL MATHEMATICS (MAT 001-099) is a basic arithmetic course which includes adding, subtracting, multiplying, and dividing operations with whole numbers, fractions, decimals, and percent problems. Exit criteria for this course include demonstrating proficiency with the four basic operations, measurement, and word problems. Some algebra and geometry concepts may be introduced.

DEVELOPMENTAL READING (RDG 001-099) is a course designed for students who need to improve their reading skills. Exit criteria for this course include demonstrating vocabulary and comprehension skills, as well as using reference materials.

"Bridging" Courses

Transitional Studies "bridging" courses are designed specifically to help students acquire additional skills and discipline in order to be successful in curriculum courses. Unlike the Basic Skills courses, "bridging" courses are taught in a lecture format and include a greater degree of academic rigor.
The College

These courses are also non-degree credit (they may or may not be credited toward graduation for a diploma or certificate program, but they cannot be credited toward graduation for a degree program).

BASIC COMMUNICATIONS (ENG 150) is designed to develop students' written and oral communication skills. Exit criteria include demonstrating ability to write coherent, well-organized paragraphs and making oral presentations. The course may include a brief review of grammar. Students who place in Developmental English (zero-level) must complete this course plus ENG 150 before taking higher level English courses. Students who place in ENG 150 must successfully complete this course with a grade of "C" or better before taking higher-level English courses.

CRITICAL READING (RDG 100) covers the application of reading skills to improve comprehension. As a part of this course, students will be expected to demonstrate higher-order thinking skills in the evaluation of written material. This course may include some generic vocabulary skills which are necessary for success in curriculum programs. Depending on their program of study, students who place in Developmental Reading (zero-level) or RDG 100 may be required to complete these courses before taking higher-level courses.

PRE-ENTRY COURSES

Some of the College's curriculum programs require that students meet certain entry requirements prior to acceptance into the program. Most students will have met these requirements in high school or at another college. However, in some cases the student may lack a specific course which is required for entry into a curriculum. Transitional Studies offers several courses which enable students to meet these entry requirements. These courses are non-degree credit courses (they may or may not be credited toward graduation for a diploma or certificate program, but they cannot be credited toward graduation for a degree program).

INTRODUCTORY BIOLOGY (BIO 100) is designed to introduce the student to the principles of biology. The course emphasizes human physiology and the role that humans play in the biosphere.

INTRODUCTORY CHEMISTRY (CHM 100) is designed to introduce the student to the principles of general chemistry. The student is exposed to the mathematical nature of chemistry and to laboratory procedures.

INTRODUCTORY COLLEGE MATH (MAT 100) is a course designed to improve students' ability to analyze and solve problems in an algebraic context. The course may include a brief review of the four basic operations.
The College

THE TESTING CENTER

The Transitional Studies Division houses a testing center for the convenience of students and faculty. The Testing Center administers, at no charge, practice tests for the GED, exit tests from Transitional Studies classes, exemption credit tests, and curriculum make-up tests.

THE WRITING CENTER

The Writing Center offers one-on-one assistance to any member of the Spartanburg Technical College community who has problems with or questions about any writing task. Students, faculty or staff may schedule appointments with the Writing Center staff at any time. Walk-ins are assisted on a first-come basis.

INDUSTRY AND BUSINESS TRAINING (CONTINUING EDUCATION)

Education is a life-long process. The Industry and Business Training (Continuing Education) Division of Spartanburg Technical College is committed to providing Occupational Advancement courses and training opportunities for citizens of this area. These courses are of the highest quality and are affordable to management and professionals as well as clerical personnel, technicians, crafts persons, or any person wishing to improve his or her knowledge and/or job skills.

The Industry and Business Training staff provides a variety of courses that offer participants an opportunity to develop and upgrade their skills in occupational and career areas. The staff also coordinates programs to meet specific training needs of business, industry, government agencies, institutions, and associations. Training covers a wide range of activities including technical skills, management and supervision, and professional development.

Continuing Education Units (C.E.U.'s) are awarded for successful completion of all Occupational Advancement training. One C.E.U. is equivalent to ten training hours and is recognized nationally by business and industry as an accepted measure of quality training.

Offering special courses to meet training needs of individual groups and/or companies is a goal of this division. Persons interested in the activities of IBT-Continuing Education may contact the division for more information or to be placed on the mailing list.

TECHNICAL SCHOLARS

Advances in technology have created the need for a new type of employee. This individual must possess a high degree of skills, more technical education, and the experience to meet the demands of today's career fields. Employers
receive hundreds of applications from persons wanting jobs, yet only a few bring with them this new technical sophistication. All projections indicate this situation will persist as the Piedmont area continues its business and industrial growth. Local leaders are keenly aware of the dilemma. They have worked to bring together the ideas of business, industry, and technical education. The result is a program appropriately named Technical Scholars. It was developed by Spartanburg Technical College and businesses and industries.

The Technical Scholars program is a three-year plan for selected students at Spartanburg Technical College to learn classroom theory and to experience practical, hands-on application of this theory on the job. This program provides needed education and experience for high school graduates who have difficulty locating jobs due to lack of experience and training. Students are Technical Scholars for three years. They spend part of each week in school and part of each week working. The sponsoring company pays for books and tuition, plus salary. Benefits are administered according to individual company policy. Students are classified as employees and accrue seniority. The successful Technical Scholar receives an associate degree and has the opportunity for a full-time position at the end of this three-year program.

Applicants must be high school graduates or have a GED. Some Algebra background is required. Applicants must be at least 18 years old.

Students who are selected to participate must have technical career interests, proven academic abilities, and a desire to succeed. The program is supported by local business and industry, Spartanburg Area Chamber of Commerce, Spartanburg Development Association, and Spartanburg Technical College.

Applicants are tested and interviewed by Spartanburg Technical College. Those applicants who meet the standards on the test become candidates eligible to interview with participating companies. Companies interview the candidates and make sponsorship offers. Candidates accept the offer from the company of their choice.

The Technical Scholars program offers three programs of study: Electronics Engineering Technology, Mechanical Engineering Technology and Automated Manufacturing Technology. Persons interested in applying for the Technical Scholars program should contact the Director of Technical Scholars (803/591-3654) or (803/591-3700). Early applications are encouraged.

COOPERATIVE EDUCATION (CO-OP)

Cooperative education is the combination of the theories taught in the classroom/lab and the practical application of these skills in the work environment. A student is given the opportunity to learn more about their chosen career and at the same time, obtain work experience which will help him/her obtain full-time employment. Students interested in cooperative education should contact his/
LIBRARY

The library, located in the Tracy Gaines Learning Resource Center, holds a collection of over 35,548 volumes in books, periodicals, newspapers, and audio visual materials to support the academic and personal needs of its students, staff, faculty, and members of the business and industry community in general.

The library's resources are further expanded by its on-line computer access to the resources of the South Carolina State Library in Columbia, through the South Carolina Library Network, plus access to other library collections through interlibrary loan. Library orientations or bibliographic instructions are available upon request for classes or individuals. Reference services are provided in person as well as over the phone.

The general collection of books and the current issues of periodicals and newspapers are displayed on open stacks, and patrons who register with the library can check out books from the general collection. The library provides ample reading and conference space, as well as the use of typewriters, video and audio equipment and a copying machine.

Library hours are:  
Monday - Thursday  8 a.m. - 9 p.m.  
Friday                8 a.m. - 4 p.m.  
Saturday - Sunday     Closed
Admissions
CAREER GUIDANCE

The counseling staff in the Admissions Office offer career planning services. With 52 technical programs and a university transfer program available, most applicants find that they have questions or need more specific information before making a curriculum choice. An appointment for a career planning session may be scheduled by calling the Admissions Office. Topics such as the following are included:

- Programs, academic and personal requirements, nature of the program, working conditions, job opportunities and salaries.
- Application process, skills assessment and assessment requirements, registration, and financial aid.
- Opportunities for refresher courses and basic studies.
- Special information on programs, such as clinical training, work experience options, books, uniforms, certification exams, etc.

Also available in the Admissions Office is an Admissions Career Resource Center which houses a variety of career exploration materials including DISCOVER, a computerized career decision-making system. Counselors are available to assist applicants as they begin their career search.

Choices and Challenges, a career decision-making course, is designed to assist participants in identifying values, abilities, interests, life-style preferences, and needs; learning the seven steps to effective decision-making, and identifying appropriate career clusters. The course is tuition-free and offered every term.

ADMISSIONS REQUIREMENTS

The South Carolina Technical Education system operates 16 open admissions colleges as required by Act 654 of the code of Laws of South Carolina. Consistent with the statutory requirement, the Technical Education System makes every effort to minimize geographic, financial and scholastic barriers to the kinds of post-secondary programs and services offered through the technical colleges.

The Technical Education system accepts the responsibility to produce technicians who are competent to meet the assessed needs of South Carolina business and industry, and at the same time, to assist individuals in achieving educational and occupational objectives consistent with their potential.

In order to fulfill the System's educational mission and to promote the achievement of individuals with varied potential, open admission is defined as a practice which (1) admits to the college all citizens who can benefit from available learning opportunities, and (2) places into specific programs of study those students whose potential for success is commensurate with expected standards of performance.
Admissions

Admission to specific programs requires that the applicant have appropriate educational preparation as measured by satisfactory skills assessment scores and prerequisite courses, and have completed all admission requirements. When scores on skills assessment and/or evaluation of admissions information indicates that an applicant is not prepared to enter a particular program, he or she will be offered the appropriate course or courses to provide the needed preparation. This may include referral to other schools or agencies to meet specific needs.

Information on assessment scores required for programs and other requirements unique to each division may be obtained in the Admissions Office.

Only applicants 18 years of age or older (with a high school diploma or the equivalent) will be admitted as a regular student. Non-high school graduates 18 years of age or older may apply for admission with approved skills assessment scores.

For programs requiring a high school equivalency, an average score of 45 is required on a military GED; otherwise the applicant would be required to take the S.C. High School Equivalency Exam. Any requests for special admission, i.e. students wishing to take curriculum courses who do not meet the above requirements, should be made to the Dean of Student Services.

APPLICATION DEADLINE

All prospective students are encouraged to apply for admission as early as possible. In order to assure proper processing of application and registration materials and to allow for student counseling, advising, and orientation, APPLICANTS ARE ENCOURAGED TO APPLY AT LEAST FOUR WEEKS PRIOR TO THE DATE OF REGISTRATION FOR THE DESIRED TERM OF ENROLLMENT. ALL DOCUMENTS SUBMITTED TO THE COLLEGE BECOME THE PERMANENT PROPERTY OF SPARTANBURG TECHNICAL COLLEGE. Some programs, such as Health Sciences, often fill up a year before the starting date. Financial aid applications should be submitted three months prior to enrollment date.

APPLICATION PROCEDURES

1. New Students: An application and a non-refundable application processing fee of $10 is required of each applicant in order to initiate the application process. The $10 processing fee does not apply toward the student's instructional fee. The application and fee are applicable for one year from the date paid.

2. Former STC students applying to return to the same program: If a student has not attended for at least two consecutive terms, the student must enter under the new STC catalog and submit a new
application. If a student has not attended for at least one year, a $10 application fee is also required.

3. **Former STC students applying to enroll in a new program**: An application is required to initiate the application process. If a student has not attended for at least one year, a $10 application fee is also required.

4. **Currently-enrolled students wishing to enroll in a new program**: An application is required to initiate the application process.

**SCHOOL TRANSCRIPTS**

Applicants must submit a high school transcript or GED scores. College transcripts from each college attended must be submitted if the applicant requests exemption from skills assessment and/or evaluation for transfer credit.

**SKILLS ASSESSMENT**

1. All applicants will be required to take Spartanburg Technical College's skills assessment, ACT's ASSET, unless determined exempt as indicated below. Applicants applying for a program requiring ENG 101 must complete a writing sample unless determined exempt as indicated below.

2. SAT scores will not be accepted in lieu of ASSET scores.

3. Applicants with previous college credit (includes current or previous credits from Spartanburg Technical College) may be exempt from ASSET assessment based on the following criteria:

<table>
<thead>
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<th>EXEMPTION FROM ASSET</th>
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<td>WRITING SKILLS</td>
<td>ALGEBRA SKILLS</td>
<td>TECH WRITING SAMPLE</td>
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<td>NUMERICAL SKILLS</td>
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</table>

12 semester/15 quarter credits from accredited institution within the last five (5) years which include courses in college level English, math, and reading with a grade of "C" or better. An algebra course taken at an accredited institution within the last five (5) years with a grade of "C" or better. Equivalent course in ENG 101 within the last five (5) years with a grade of "C" or better.

4. Applicants for Technical Scholars programs also take an additional Technical Scholars Test.
Many students need to review basic English, reading or mathematical skills prior to entering the college's programs. Some students may not have taken high school courses that would prepare them for college-level work. Others may come to college years after they have graduated from high school. Some wish to go to college although they have a poor high school record. Our Transitional Studies program is designed for students who need to obtain the skills necessary to enter one of the college's programs. The courses are college preparatory in nature. Both individual and group instruction are available in Transitional Studies. Students whose assessment scores fall below required levels must complete Transitional Studies courses prior to entering their curricula. (Students whose scores fall below the sixth grade level are referred to basic skills instructional programs within the community.)

A student must show satisfactory academic progress and attendance while in Transitional Studies. Learning is measured by test scores at the end of the term. The test scores at the end of the term must show improvement, and the student must complete course requirements.

A.S.A.P. STUDENTS - ADMISSIONS REQUIREMENTS

1. Any adult over the age of 18 (or, if under 18, a high school graduate or possess a high school equivalency diploma) may enroll as an ASAP student on a space-available basis.

2. Technical Programs (excluding university transfer)
   A. A.S.A.P. applicants desiring to take a course in any of the Technical Programs may exempt ASSET assessment. If the desired course has a prerequisite, the applicant must verify that the prerequisite course has been taken.
   B. A.S.A.P. applicants may take up to 15 semester credits prior to fulfilling regular admissions requirements. If an A.S.A.P. student should decide at a later date to enroll in a regular STC Program, all admissions requirements must be met: complete an application, pay a $10 application fee, complete ASSET assessment, submit all high school and college transcripts, and be officially accepted by an admissions counselor.

3. AA/AS Programs (university transfer courses)
   A. Applicants whose educational goal is to take several college transfer courses with the intention of later transferring those
courses to another college/university may not apply as an
A.S.A.P. applicant. These applicants must apply for regular
admission to the college in the AA/AS Programs which includes
ASSET assessment.

B. A.S.A.P. applicants whose educational goal is to take a college
transfer course for self-enrichment must take the appropriate
section of ASSET.

4. A.S.A.P. applicants currently enrolled at another accredited
institution who have been referred to take a college transfer
course may exempt ASSET with a letter from the institution and the
college transcript verifying academic performance and prerequisite
courses.

5. A.S.A.P. students are not eligible to receive VA benefits or
financial aid.

HEALTH SCIENCES - ADMISSIONS REQUIREMENTS

Spartanburg Technical College offers the Health Sciences programs that are
outlined in the program descriptions. The nature of these programs requires the
following additional application procedures: 1. A Health Sciences Division
Admissions interview with the Health Sciences counselor and, for some pro-
grams, further interviews at the clinical site. 2. Applicants wishing to enroll in
Early Childhood Development, Practical Nursing, Gerontology Specialist, or
Developmental Disabilities Specialist must submit to a records check by the
South Carolina Law Enforcement Division. Failure to submit to this check
results in the student's exclusion from enrollment in the program. 3. Accepted
applicants must submit a completed Health Form prior to registration. Failure to
receive this form results in the student's exclusion from enrollment in the
program.

These additional application procedures for Health Sciences programs are
initiated at Spartanburg Technical College following the completion of the
regular application process outlined in the "Admissions" section of this catalog.

In addition to regular admissions procedures, prerequisite courses listed
below and on the opposite page are required for certain Health Sciences
Division programs.

Radiologic Technology, Respiratory Therapist, Respiratory
Therapy Technician, Medical Laboratory Technology and Practical
Nursing require Biology or Chemistry and one year of Algebra.
Admissions

- Surgical Technology and Dental Assisting require Biology or Chemistry.
- Dental Assisting and Medical Secretarial Science require typing.

EARLY ADMISSION

Applicants attending high school who desire to begin their post-secondary educational experience prior to high school graduation will be classified as early admission students. The high school student granted early admission has the status of a Special Student. In order for a high school student to be granted early admission, he/she must comply with the following:

1. The student must be a high school senior.
2. The student must submit written permission from both his/her school principal and parent or guardian.
3. The student is allowed to complete a maximum of 15 semester hours prior to graduation from high school.
4. Successful completion of courses as a special student does not imply acceptance into a technical program or waiver of any admission requirements for later admission to a degree, diploma, or certificate program.

For high school graduates enrolling in a degree, diploma, or certificate program at Spartanburg Technical College, all credits earned through early admissions are applicable toward the appropriate STC program (if such credits are parallel to program requirements and approved by the Department Head). Upon acceptance by another institution of higher education, the credits earned by an early admission student may be transferred at the discretion of the admitting institution.

TRANSIENT STUDENTS - ADMISSIONS REQUIREMENTS

Students enrolled at other colleges and who wish to take courses at STC for the purpose of transferring them may do so by submitting an application for admission. It is the responsibility of the student to determine if the courses at STC will be transferable to the primary college.

FOREIGN STUDENTS - ADMISSIONS REQUIREMENTS

Any applicant who is: 1) requesting a student visa, 2) transferring from another college under a student visa, 3) possessing a student visa other than one that has been approved by the Spartanburg Technical College Admissions and Records Office and local immigration officials will be classified as a foreign student.
Foreign students must complete the regular admissions requirements three months prior to date of entry. In addition, the foreign applicant must submit:

1. Records of a physical examination by a physician.
3. Score report from the TOEFL (Test of English as a Foreign Language).
4. An affidavit of support or a notarized bank statement indicating sufficient funds to cover foreign student living expenses and educational costs for the academic year.
5. A tuition deposit equal to the foreign student's cost for the academic year. Students must deposit $3,365 to cover tuition for one year.

Acceptance of a foreign applicant (new or transfer) will take place when the applicant has met all requirements previously stated. The foreign student counselor will initiate an acceptance letter and a 1-20 form to the prospective student. Application material must be submitted at least three months prior to requested enrollment date.

Foreign students who are allowed by the Immigrations and Naturalization Service to attend STC are issued an M-1 Visa. For restrictions of this type of Visa, contact the Foreign Student Advisor.

TRANSFER STUDENTS - ADMISSIONS REQUIREMENTS

Transfer students with at least 12 semester hours or 15 quarter credit hours may omit testing requirements if an STC counselor accepts their college work in lieu of the skills assessment. Approval depends on credits taken, grades received, length of time since credits were earned and entrance requirements for the STC program. Applicants with less that the above hours should follow regular admission procedures.

1. The subject being transferred must closely parallel the subject being offered at STC as determined by the Department Head with the approval of the Division Dean.

2. Credit for the subject must show on official transcript from the granting institution which must be on file at STC.

3. Subjects taken more than five years ago will be accepted for transfer only at the discretion of the Department Head with approval of the Division Dean.
Admissions

4. When transferring from another accredited college there is a maximum of 50% transfer credit given for approved parallel course work in the major area of study, provided each subject carries a grade of "C" or better and has been approved by the Department Head and Division Dean. After acceptance, additional major area credit may be awarded on the basis of proficiency examination.

5. Credit is normally accepted only from accredited colleges, i.e. those colleges accredited by the Southern Association of Colleges and Schools or by any of the other parallel regional accrediting agencies, with the approval of the Department Head and Division Dean.

6. STC does not grant transfer credit for United States Armed Forces Institute (USAF) courses nor for military schools attended. Credit may be received by demonstrating competency in the subject matter of the courses.
FEES

I. Application Fee - $10 (Not refundable; paid when applying for admission to Spartanburg Technical College.)

II. Fee Schedule

A. Instructional Fee - Full-Time Students
   Spartanburg County Residents: $375 per term
   Out-of-County Residents: $470 per term
   Out-of-State Residents: $750 per term

   Part-Time Student Rate (Less than 12 credit hours)
   Spartanburg County Residents: $32.00 per credit hour
   Out-of-County Residents: $40.00 per credit hour
   Out-of-State Residents: $63.00 per credit hour

B. Instructional Fee - Out-of-Country
   (Foreign Students)
   $1125 per term

III. Other Fees

Auditing, credit by exam, enrolling in self-paced courses after the semester begins, insurance fee, textbooks, senior citizens:

Students auditing courses pay regular fees. Credit by exam fees are $15 per exam. Textbooks and materials may be purchased at the campus bookstore. Cost of books is not included in the fees listed above. A fee of $5 is charged for registration of a vehicle on campus. Curriculum students enrolling for 3 credits or less will pay a 75 cents insurance fee. A $20 graduation fee must be paid when a student applies for graduation.
IV. Fee Waiver for Senior Citizens

Persons age 60 or over may enroll in any course free on a space-available basis. Books and supplies will be purchased by the student.

V. Instructional Fee Changes

Instructional fees are subject to change without notice by the Spartanburg County Commission for Technical Education.

VEHICLE REGISTRATION

All students wishing to bring a car or other vehicle on campus are required to have a current parking permit permanently attached to the appropriate position on their vehicle. A charge of $5 will be made for each permit issued. Permits will be valid for one academic year. (This applies to all curriculum, Transitional Studies, Adult Education, and JTPA students.)

Any curriculum, Transitional Studies, Adult Education, or JTPA student who loses his/her permit or trades automobiles may apply for a new permit. The students should apply for the new permit in the Business Office. A service fee of $2 will be charged for the processing of the application for a new permit.

All Industry and Business Training/Continuing Education students are charged a parking fee of 50 cents. This fee is included in the cost of the program. Each student is given a permit which will be valid for the duration of the course.

All revenues collected from the issuance of parking permits and parking control will be utilized to offset expenses of the security/control functions.

IDENTIFICATION CARDS

Student identification (ID) cards are issued during registration. There is no charge for the identification card. Students are asked to carry these cards at all times. New identification cards are revalidated yearly. The student is charged a $5.00 fee to replace a lost ID Card.

PAYMENT OF FEES

All fees are payable when due. Students anticipating the need for financial assistance should see the Coordinator of Student Aid prior to registering.

No student will be given credit for the completion of a course unless all fees are paid. Similarly, all equipment, library books, and other school-owned property must be returned when due or credit for courses taken will not be granted.
Students withdrawing before completing a course are billed on the same basis as the rules outlined in the refund policy.

A student may be barred from attending classes for failure to settle financial obligations when due.

**REFUND POLICY**

Refund of the comprehensive fee may be made when a student officially withdraws from the College. No penalty is assessed during the add/drop period. The add/drop period as it pertains to the refund policy is the first five instructional days of the semester regardless of the individual's schedule.

Students who desire a refund after they have registered and are scheduled to attend classes are refunded according to the following pro rata refund policy:

100% of the comprehensive fee is refundable if the student officially drops or withdraws within the scheduled add/drop period.

50% of the comprehensive fee is refundable if the student officially drops or withdraws within five school days after the scheduled add/drop period.

This policy applies even if the student does not attend class. The five day period begins the first day after the scheduled add/drop period, regardless of the individual's schedule. Requests for refunds after this period cannot be honored.

It is the responsibility of the student to request refunds by completing an official add/drop form and having it approved by his or her advisor. The student should then return the completed add/drop form (along with any supporting documentation) to Student Records and the Business Office. A refund check is mailed within approximately three weeks after the request is submitted to the Business Office.

**BOOK REFUND POLICY**

IMPORTANT: Until you are positive that you will not be dropping the class for which you purchased a textbook, DO NOT WRITE YOUR NAME OR MARK IN THE BOOK.

FULL REFUNDS will be given up until ten days after purchase, provided the books are unmarked, in new condition and MUST BE ACCOMPANIED BY THE CASH REGISTER RECEIPT. The receipt denotes ownership and REFUNDS will not be given without it.
Financial Aid

Refunds for veterans who are enrolled in non-degree programs are made subject to the limitations set forth in VA Regulation 12204.1.

FINANCIAL AID

The objective of the Financial Aid Program at Spartanburg Technical College is to assist students who have a financial need by providing a Financial Aid Package to meet their need.

The primary responsibility for meeting college costs lies with the student’s family and the student. A financial need is established when it is determined that the resources of the family (expected family contributions) do not meet the cost of attending a particular institution. The total cost of attending college includes tuition and all fees, books and supplies, personal expenses and allowable travel expenses. A student’s computed financial need is the total cost of attending a particular college minus the expected family contribution.

Students must not have an outstanding debt from previous grants, be in default on educational loans, or have outstanding debts to Spartanburg Technical College. To be eligible for the federal programs, the student must be a United States citizen or a permanent resident.

Financial need is determined by a standard needs analysis system using confidential data submitted by the parents and/or the student. The needs analysis establishes the financial need by deducting the computed family and/or student contribution from the total cost of attending STC. The Family Financial Statement administered by ACT, is the needs analysis system preferred by Spartanburg Technical College.

In a typical year, Spartanburg Technical College awards over $550,000 to students, with 60% of students receiving a form of financial aid from college, federal, state and private sources. Each financial aid program has a deadline requiring early application. Some types of aid are outlined below.

Pell Grants - These federal grants provide from $200 to approximately $2,400 per year to eligible students for tuition, books and other educational expenses. These grants are financial awards which do not have to be repaid. Allow 6 to 8 weeks for processing federal student aid applications. Eighty percent of those who apply for the Pell Grant do receive some financial assistance. The Pell Grant is based on income that was reported on the previous year's tax returns.

College Work-Study - This federal program provides funds to employ a limited number of students in part-time jobs. Apply early since openings are limited and fill quickly. Most work-study positions are filled in the Fall Term each year. You must apply for the Pell Grant before you can qualify for College Work-Study.
Single Parent/Homemaker Aid - This program provides tuition, books, child care and/or transportation to eligible single parents/homemakers. Contact the Women’s Center for further information.

Technical Scholars - This program provides a great opportunity to the qualified student who would like to combine classroom instruction with related work experience at a participating industry or business. Tuition and books are paid by the company and the student receives a salary. For details on the Scholars Program in Electronics Engineering Technology, Mechanical Engineering Technology and Automated Manufacturing Technology, call the Technical Scholars Office.

Other Aid - Other forms of aid are awarded each year such as scholarships, special aid awards, etc. Many of these have restrictions related to academic majors, eligibility guidelines, and academic standards. Also, the college’s JTPA office provides assistance with tuition and books. Details on financial aid and veterans benefits are available from the Student Aid Office.

FINANCIAL AID STANDARDS

Students receiving financial assistance through the Pell Grant, the Supplementary Opportunities Grant (SEOG), and/or College Work-Study Program (CWSP) must be making satisfactory progress toward a degree, diploma, or certificate. A copy of the standards by which satisfactory academic progress is measured for students receiving federal financial aid is furnished to each recipient upon issuance of their award letter. Any student receiving aid must take at least 6 credit hours per semester to remain eligible for financial assistance.

REFUNDS - FINANCIAL AID RECIPIENTS

If a student who has received financial aid in the form of a cash payment from Title IV federal funds withdraws from school under any circumstances, a determination will be made on whether a refund is owed to the Title IV account. If a refund to the account is determined, funds will be returned in proportion to the amount issued from each Title IV program.

VETERANS BENEFITS

Spartanburg Technical College is approved by the Department of Veterans Affairs for training servicepersons, veterans, dependents, and reservists under Title 38, U.S. Code of Federal Regulations; for the following VA educational benefits: VEAP (chapter 32), Non-Contributory VEAP (section 903), New GI Bill - Active Duty Educational Assistance Program (chapter 30), New GI Bill - Selected Reserve Educational Assistance Program (chapter 106), Survivors and Dependents (chapter 35), and Vocational Rehabilitation (chapter 31).
Financial Aid

The college has a Veterans Assistance Office charged with coordinating College services for V.A. students and active duty service personnel. Help is available with admissions and certification, educational or vocational counseling, and for other needs that affect educational progress.

Students who are eligible for V.A. benefits should be prepared to pay all expenses and instructional fees at the time of registration.

Students who are eligible for V.A. benefits should consult the Veterans Assistance Office.

Veterans Requirements - A veteran may receive benefits only for those courses that are included in his/her program of study as outlined in this catalog. All courses that are dropped by V.A. students must be reported to the Veterans Office. These students must adhere to the attendance policy established by Spartanburg Technical College. Any V.A. student who accrues more than the allowable number of absences will have his/her benefits terminated.

Veterans who change their program must complete a change of program form in the Veterans Office.

All V.A. students enrolled in diploma or certificate programs are required to submit a Veterans Attendance Report on the last day of each month. All V.A. students who discontinue their enrollment in school are required to withdraw officially from school.

If the student changes his/her program of study, all credits that fulfill requirements in the new program must be transferred. This is a requirement of the Department of Veterans Affairs.

The V.A. will authorize benefits for courses that are being repeated if the courses are within the program outline and were failed previously. A course may be repeated only once.

Tutorial Assistance for Veterans - Veterans may receive monetary assistance from the Veterans Administration to pay a tutor, if one is required.

Advanced Payment Request - Application may be made for an advanced payment of the first benefit check if the veteran has completed admission requirements, completed an application of advanced payment in the Veterans Office at least 30 days prior to registration day, and if he or she has been out of school for at least a full calendar month. The VA advanced pay check is mailed directly to the college and is disbursed on the day of registration. No advance checks can be picked up until all registration has been completed, which includes the payment of all fees. Veterans benefits schedules are available from the Veterans Office.
Veterans Academic Requirements - Information on academic progress, withdrawing reporting procedures, refunds, and attendance is available from the Veterans Office at Spartanburg Technical College.

Address Changes - The V.A. must be notified of any address changes. VA Forms for address changes must be completed by the student in the campus Office of Veterans Affairs.

Veterans Work Study - Applications are accepted for a limited number of VA work study student positions. This program can provide part-time employment for Chapter 30 students who are enrolled full-time. The maximum allowance is 250 hours per enrollment period. The hourly rate of pay is minimum wage.
STUDENT INSURANCE

All registered students are covered by an accident policy while on campus, excluding participation in any organized sports, but to include, travel to and from scheduled clinics, field trips, off-campus work projects, internships, practicums, and participation therein. Benefit coverage includes medical injury expense $5,000 - maximum; accidental death, accidental dismemberment $1,500 - principal sum.

Injuries must be reported to the College within forty-eight (48) hours from the time of the accident for benefit determination. Claim forms may be obtained from the Personnel Office. The premium is included as part of the comprehensive tuition fee for all students registered for three credit hours or more. A fee of 75 cents is added to fees for students registered for less than three credit hours.

CAMPUS SECURITY

Campus safety and security is coordinated by the Office of Public Safety which has a security force of a public safety officer who has the overall responsibility of campus security. The public safety officer is employed by the college, and commissioned by the South Carolina State Law Enforcement Division to perform security functions with arrest powers for Spartanburg Technical College. The public safety officer is skilled in law enforcement procedures, investigation, report writing, fire prevention, emergency medical procedures, first-aid and CPR.

Campus security is contracted by an outside security company. The security company furnishes the college with twenty-four hour a day on-campus security. The security officers must meet the requirements for security guards. After security guard(s) have met the requirements, they have the same powers of arrest on campus as a deputy sheriff. After the initial appointment, the officer must be re-licensed annually. Spartanburg Technical College’s security force is armed and conducts foot and vehicular patrols of the campus. They prepare and submit incident reports, and other reports pertaining to safety and security and work closely with the Spartanburg County Sheriff’s Department.

REPORTING CRIMES, EMERGENCIES

Alcoholic beverages, illegal drugs and dangerous weapons of any type are not permitted on campus. Potential criminal actions and other emergencies on campus can be reported directly by a student or faculty/staff member to the public safety officer by dialing campus extension 3774 or 3777, or 0 for operator. Upon receipt of the call, campus security is dispatched immediately to the site of the complaint and has the authority to make arrests, if necessary. If assistance is needed, they have radio contact with the Spartanburg County Sheriff’s Department.
Student Information

COMMUNICATION OF SECURITY INFORMATION

Spartanburg Technical College continues to provide safety and security information for students and employees regularly through bulletins, posters, brochures, and college and student newspapers. The Physical Plant Office maintains the college's buildings and grounds with a concern for safety and security. Physical Plant Office personnel inspect facilities regularly, promptly makes repairs affecting safety and security, and respond immediately to reports of potential safety and security hazards; such as, broken windows and locks, and outside lights.

HOUSING

The College does not provide living accommodations for students. In all cases, students are responsible for making their own arrangements for housing.

JOB PLACEMENT

The Job Placement Office personnel assist currently enrolled students and graduates secure meaningful employment, make realistic vocational choices and plans, and obtain data on current local manpower needs and other labor market information.

The Job Placement Office is a link connecting the College's academic and career programs to business and industry. The Job Placement Office facilitates the transition of students into the world of work...helping students to clarify their occupational choices and interests and to capitalize on them.

The Job Placement Office offers these services:

- Assistance in securing part-time jobs, temporary jobs, summer jobs, and full-time jobs.
- A job-readiness program covering interview techniques, application procedures, resume preparation, and employment responsibilities.
- Job listings for business, industry, government, and educational institutions.

STUDENT SERVICES

Student Services provides support services to facilitate student enrollment, retention, and graduation. These services include: Financial Aid, Veterans' Affairs, Student Activities, Counseling, and Job Placement. Further information on these services may be obtained from the Admissions Office and the Student Handbook.
COUNSELING AND CAREER DEVELOPMENT

Counseling and career development services are available to all Spartanburg Technical College students. Career, personal, and academic counseling is available for students from their first visit to the campus until graduation. Through the Counseling Services and the Career Center, students have access to a number of diagnostic tests and career planning workshops. The goal of Student Services' Counselors is to help students develop professionally and personally.

STUDENT GOVERNMENT ASSOCIATION (SGA)

Students seeking to develop leadership abilities or provide services to the student body can find such an opportunity through participation in the Student Government Association (SGA).

SGA elections are held annually in accordance with the election process stipulated in the SGA constitution. Regular meetings are scheduled to plan activities and to handle any student issues which are brought before the Association. In addition, SGA members provide student representation on college committees.

Officers are elected by the student body each April and serve a one-year term. The President, Vice President and Secretary/Treasurer of the SGA are responsible for conducting the activities of the organization and are also responsible for maintaining office hours at the SGA Office located on campus. Office hours are posted at the SGA Office.

STUDENT ACTIVITIES

The Coordinator of Student Government serves as the advisor to the SGA and the College Transfer Coordinator serves as advisor to the STC student newspaper. The Student Activities Office also serves as the administrative liaison for Spartanburg Technical College student organizations.

All campus activities outside the classroom are the responsibility of the Student Activities Office. Students interested in becoming involved are encouraged to contact the Student Activities Office which is located in the Admissions Office, Ledbetter Building.

RELEASE OF STUDENT INFORMATION

Spartanburg Technical College, in the execution of its responsibilities to students, maintains accurate and confidential student records. The College staff recognizes the rights of students to have access to their academic and personal
Student Information

records in accordance with existing college policy and the Family Educational Rights and Privacy Act of 1974 (Buckley Amendment). The Student Handbook gives details on these procedures.

STUDENT DUE PROCESS

The College provides due process procedures for student appeals in the following areas: disciplinary actions, fees, and academic questions. Also, the College provides a student grievance procedure. These procedures are outlined in the Student Handbook which is available in the Admissions Office.

GRADUATION REQUIREMENTS

To be eligible for graduation from Spartanburg Technical College, the student must complete the following:

1. Fulfill all the course requirements of the program;

2. Be recommended for graduation by his/her faculty advisor at the College;

3. Earn a grade point average of at least 2.0 in all studies attempted which are applicable toward graduation in his/her program;

4. Pay $20 graduation fee at the Business Office;

5. File an application for graduation in the Records Office by publicized deadline dates;

6. Resolve all financial obligations to the College and return all library materials.
AWARDING DEGREES, DIPLOMAS, AND CERTIFICATES

Degrees

Spartanburg Technical College awards ten Associate Degrees:

- Associate Degree in Computer Technology
- Associate Degree in Business Technology
- Associate Degree in Engineering Technology
- Associate Degree in Health Sciences
- Associate Degree in Agricultural Technology
- Associate Degree in Industrial Technology
- Associate in Public Service
- Associate Degree in Occupational Technology
- Associate Degree in Arts
- Associate Degree in Science

A graduate having earned one of the above degrees and who enrolls for additional credits to complete a new program leading to the same Associate Degree is eligible to be awarded a dual Associate Degree only if less than fifty percent of credits earned in the original program are transferrable to the new program.

Diplomas

Students may earn multiple certificates and diplomas with the following exception. When more than one award (certificate, diploma, degree) is earned in the same general field of study within the same academic year (September-August), only the highest level earned will be awarded.

Awarding of Certificates, Diplomas, Degrees

Graduation exercises are held once per year. Students may apply for graduation at the end of each semester according to the deadlines set forth in the calendar. Students planning to complete graduation requirements during the Summer should apply during the Spring Semester in order to participate in the graduation exercises. Degrees are conferred to those having met the standard of performance of the college and of the academic department.
# Student Information

## GRADING SYSTEM

As of Summer 1992, the semester-hour credit is in effect, and the following marks are used in grading.

<table>
<thead>
<tr>
<th>GRADE</th>
<th>POINTS</th>
<th>USED IN GPA CALCULATION</th>
<th>CREDIT HOURS AWARDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Excellent</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>B Above Average</td>
<td>3</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>C Average</td>
<td>2</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>D Below Average</td>
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<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>F Failure</td>
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<td>No</td>
</tr>
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<td>E Exempt</td>
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</tr>
<tr>
<td>I Incomplete</td>
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</tr>
<tr>
<td>AU Audit</td>
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<tr>
<td>CF Carry Forward</td>
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</tr>
<tr>
<td>TF Transfer Credit</td>
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</tbody>
</table>

### Transitional Studies:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
<th>Used in GPA Calculation</th>
<th>Credit Hours Awarded</th>
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<tbody>
<tr>
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<td>U Unsatisfactory Completion</td>
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<td>W Withdrawn</td>
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<tr>
<td>A* Excellent</td>
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</tr>
<tr>
<td>B* Above Average</td>
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<td>C* Average</td>
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</tr>
<tr>
<td>D* Below Average</td>
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<td>No</td>
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</tr>
<tr>
<td>F* Failure</td>
<td>0</td>
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</tr>
</tbody>
</table>

## GRADE REPORTING

Each term, final grade reports are mailed to students. These grades become a permanent part of his/her official transcript record. Grades are final when filed by an instructor. Incomplete, "I," grades must be completed before mid term of the subsequent term. "I" grades not completed will be automatically changed to a grade of "F." (STC Policy # IV-10.9) If an error has been made, the grade change must be submitted to the appropriate department head. After approval by the division dean and Vice President for Academic Affairs, the grade change is to be submitted to Student Records for data entry.GRADE CHANGES CAN
Student Information

ONLY BE MADE WITHIN ONE YEAR OF THE TERM FOR WHICH THE GRADE WAS ASSIGNED. (STC Policy #IV-10.10) If a student believes that a grade was assigned in error, the student must request a review of the grade by the instructor within one term of the term for which the grade was assigned. If the instructor determines that an error was made in the student's grade, the instructor will follow the procedure in the preceding paragraph. (STC Policy #IV-10.10)

AUDITING COURSES

A student who does not wish to receive credit or take final exams may register as an audit student. After the drop/add period, a student auditing a course cannot change to credit; conversely, a student enrolled in a course for credit cannot change to audit. To receive credit for a previously audited course, a student must register and take the course as a credit student, or with department approval, may apply to receive credit by examination.

GRADE POINT AVERAGE

To calculate GPA:
1. Figure the Quality Points for each course:
   - For each course grade multiply credit hours attempted times grade points* (see previous page)
2. Figure the Quality Points for all courses:
   - Sum the quality points for the individual courses
3. Sum the total credit hours attempted
4. Divide the Total Number of Quality Points (from #2) by the total number of credit hours attempted (from #3)

GPA CALCULATION: \[
\frac{\text{TOTAL QUALITY POINTS}}{\text{TOTAL CREDIT HOURS ATTEMPTED}} = \text{GPA}
\]

A GPA of at least 2.0 is required for graduation. For courses repeated, the higher grade will be calculated into the GPA.

WITHDRAWAL FROM SCHOOL

A student wishing to withdraw from school should complete an official withdrawal form and meet with his/her advisor to complete a non-returning student form. If the advisor is not available, the student should see the Student Services counselor or coordinator on duty in the Admissions Office. Following this procedure protects the student's privileges of re-admission and transferring credits to another institution. Any student who discontinues his or her work without formal withdrawal does so at the risk of having future registration privileges withdrawn. It is the student's responsibility to request a refund should he or she be eligible for one. Students who are on Financial Aid should notify the Financial Aid Office, as well as going through the withdrawal process.
ADD/DROP/WITHDRAWAL PERIOD

The add/drop period is that period during which a student, with the permission of the departmental advisor and/or Division Dean, may drop or add courses or change audit status without academic penalty. The add/drop period is the first five instructional days of the term. Courses dropped during this period will not appear on the transcript. A student dropping a course after the add/drop period will be assigned a “W” or “WF” based on the performance of the student at the time of withdrawal. This add/drop period refers to grades and does not relate to fee refunds (see refund policy for refund allowance).

STUDENT RECORDS AND TRANSCRIPTS

Student transcripts are released upon receipt of a signed request. Students may request copies of their transcripts be sent to any individual or institution they choose or secure copies for their own use. There is no charge for the first copy, additional copies are $1 each. By presenting proper identification, a student may gain access to any information contained in his/her file. However, high school transcripts and transcripts from other colleges cannot be forwarded by Spartanburg Technical College to other public and/or private agencies.

DEAN'S LIST

To qualify for the Dean’s List, a student must have declared a major and must be taking a minimum course load of 12 credit hours in program courses. Dean’s List recognition will be granted for students meeting the above requirements with a grade point average of 3.50 and no course grade lower than a C. A grade of D, F, I or WF automatically prevents students from receiving Dean’s List recognition. A grade of audit (AU) does not affect a student being placed on the Dean’s List, providing the course load (excluding the credits audited) exceeds the minimum 12 hours.

ATTENDANCE

A. Attendance - Punctual and regular attendance in all classes, laboratories, field trips, and other school assignments is the obligation of every student. There are no excused absences; therefore, students are urged to reserve their absences for emergencies. When illness or other emergencies cause a student to be absent for a period of time, it is the responsibility of the student to immediately notify the instructor and to make up the work which is missed. Except in extenuating circumstances (approved by the Division Dean), a student will be dropped by the instructor when the student fails to maintain 80 percent attendance of the total classes. Some academic divisions have stricter attendance requirements. These are indicated in the Divisional Handbooks.
B. Students needing to miss classes because of religious holidays will be required to complete all assignments, homework, tests, exams, etc. if they do not want to have the absence counted against the absences allowed by the faculty and allowed by the college.

A student who wishes the college to recognize an absence for a religious holiday or holy day must take one of the following actions:

1. **Three or less consecutive absences**: Discuss the situation with the instructor at least one week prior to the first absence and develop a plan for making up activities and assignments missed.

2. **Four or more consecutive class days**: Provide written notice to the instructor and college admissions office within the first 10 class days of the semester and meet with the instructor prior to the absences to develop a plan for making up all activities and assignments missed.

C. **Tardies** - Tardy students are admitted to class only at the discretion of the instructor. A student is considered tardy if he or she is not in the classroom at the time the class is scheduled to begin (unless otherwise designated by the instructor). Students may leave class if the instructor fails to appear 15 minutes after the scheduled class time, unless otherwise instructed.

**ACADEMIC STANDARDS OF PROGRESS**

A. **Academic Probation** - A student is considered to be in serious academic difficulty if his/her program grade point average falls below the levels indicated in the table below. Such a student will be placed on academic probation. The student will be on continued academic probation until the minimum cumulative technology GPA meets the GPA requirements for the credit hours attempted.

**ASSOCIATE DEGREE**

<table>
<thead>
<tr>
<th>Credit Hours Attempted</th>
<th>Minimum GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-18</td>
<td>1.4</td>
</tr>
<tr>
<td>19-36</td>
<td>1.6</td>
</tr>
<tr>
<td>37-45</td>
<td>1.8</td>
</tr>
<tr>
<td>over 45</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**DIPLOMA or ONE YEAR CERTIFICATE**

<table>
<thead>
<tr>
<th>Credit Hours Attempted</th>
<th>Minimum GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-18</td>
<td>1.6</td>
</tr>
<tr>
<td>19-30</td>
<td>1.8</td>
</tr>
<tr>
<td>over 30</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Students enrolled in certificate programs with a length of 8 - 20 credit
Student Information

hours must maintain a 2.0 cumulative curriculum GPA in their program of study to achieve satisfactory academic progress.

Students in some curriculum programs may be required to achieve at least a 2.0 grade point average each term and/or achieve at least a grade of C in each major course. Any program that has additional academic requirements has these requirements published in the Division Handbook available in the Division’s Office.

B. Academic Exclusion - If a student fails to earn a 2.0 grade point average (C average) during the term that he/she is on academic probation, the student will be excluded from courses in the following term. Only extenuating circumstances which are both documented and approved by the Department Head and Division Dean may justify an extension of the probationary period. Students who have been on academic exclusion and are re-admitted are cautioned that they remain on academic probation and are subject to academic exclusion again if they fail to maintain at least a C (2.0) GPA for the courses taken during the next term of attendance.

C. Academic Probation/Exclusion (Transitional Studies) - Any student who receives a "U" in a transitional studies course will be placed on academic probation in that course. A second "U" in the course will result in the student's not being allowed to register for that course for a period of one year.

D. Re-admission - To be re-admitted after a period of academic exclusion, the student must submit an Application for Admission and complete all admission requirements in effect at the time. The returning student must meet the eligibility criteria for the program for which applying and must have written approval for readmission from the department head and division dean.

SUCCESS NETWORK

Success Network is a student support service which provides counseling and assessment, and other special services for eligible students. Success Network helps students to successfully complete their courses, to develop interest and concern for their future, to be more aware of their potential and to pursue higher education. In order to strengthen students in weak areas, tutoring for many subjects is available. Seminars are held to expose students to information and activities to aid in the students’ overall academic improvement.

DISABLED STUDENTS

In coordination with the Student Services Division, the Office of Support Services for Students with Disabilities provides counseling and support services which help disabled students pursue an academic program of their choice and participate fully in campus life.
Student Information

A full-time coordinator is employed by Spartanburg Technical College. The Admissions and Counseling staff can also arrange counseling, special parking, priority registration, and many support services needed by the disabled student. All disabled students are encouraged to see a counselor in the Admissions Office.

RE-ADMISSION - ACADEMIC REQUIREMENTS

Should a student fail to attend his/her program of study for two consecutive terms, the student must re-enter under the curriculum outline in effect at the time of re-entry. This could affect credits needed and applicability of credits already taken should there have been changes in the course requirements for the program.

THE COOPERATIVE PROGRAM FOR THE SENSORY IMPAIRED

The Cooperative Program for the Sensory Impaired was established in 1986 through an agreement between Spartanburg Technical College (STC) and the South Carolina School for the Deaf & the Blind (SCSDB)

Through this unique program, individuals with hearing impairments, deafness, visual impairments and blindness may choose from the full range of programs available at the college. By combining the resources of both schools, students can be assured of comprehensive, quality support services that are necessary for equal access toward reaching their full potential of independence.

To ensure that support services are readily available and serve as a communication link for the two campuses, SCSDB employs a full-time program coordinator whose office is located at STC. Through this office, students may request interpreters, notetakers, braille and reading services, preparatory coursework, assistive technology training, transportation assistance, housing on the SCSDB campus, personal counseling and various other services.

The adult living center, Smith Hall, is located on the SCSDB campus and offers the convenience of on-campus housing, as well as the option of apartment-style living. Smith Hall is equipped with assistive devices for both deaf and blind students and is accessible to physically handicapped individuals.

The SCSDB campus is located approximately 15 minutes from the STC campus. Transportation is available for students living on the SCSDB campus to their classes at STC. Other alternative living arrangements can be made by the student for off-campus rental apartments or houses.

ALL APPLICANTS WITH HEARING OR VISUAL IMPAIRMENTS MUST INTERVIEW WITH THE COORDINATOR OF THE PROGRAM (Room E305, Telephone 591-3811 V/TDD) PRIOR TO OR AT THE TIME OF APPLYING TO THE COLLEGE. To ensure that appropriate support services are available, advance notice is needed. For that reason, all applicants and returning students with disabilities who are requesting...
Student Information

Support services SHOULD REGISTER FOR CLASSES DURING THE PREREGISTRATION PERIOD FOR EACH SEMESTER. Applicants/students waiting until registration day to register for classes cannot be guaranteed necessary support services for that semester.

EXPERIENTIAL LEARNING

The central principle that underlies awarding credit for experiential learning is that what the student knows is more important than how he learned it. If a student can demonstrate that his knowledge and skills are comparable to the competencies gained in a particular curriculum, his achievements will be recognized and credited as applicable toward a degree. Credit for experiential learning is intended to recognize accumulated knowledge in curriculum subject matter; therefore, the evaluation of a student's experiential learning should not consist of a comprehensive examination for one subject. Credit by experiential learning should not be used when a student's intent is to challenge a particular course.

The College recognizes that a perfect match does not exist between academic values and credits and factors indicating achievement in non-academic areas. Years of experience do not necessarily indicate ability. Therefore, the student will be awarded credit for such experience only when he has demonstrated the specific competencies gained.

The evaluation of student competence is made by the teaching faculty. It is appropriate that faculty who regularly judge student performance and award credit in programs should also assess the competence of students applying for credit equivalency. A faculty member shall award credit for experiential learning only in areas in which the faculty member has sufficient competence.

PROCEDURE FOR THE EVALUATION OF EXPERIENTIAL LEARNING

1. Assessment of experiential learning for credit is conducted only for a student who has been formally accepted by Spartanburg Technical College, has paid the $10 application fee, and has paid the $15 fee for Credit by Experiential Learning.

2. A student who wishes an assessment of experiential learning must submit a Credit by Experiential Learning form to his advisor.

3. The faculty member(s) performing the assessment will determine which techniques will be used: interviews, documentation, observation of performance, portfolio, etc. (A combination of techniques is strongly recommended.) The faculty member making the assessment may also seek additional information about the student's competence from individuals knowledgeable about the student's achievements.
ARTS AND SCIENCES DIVISION

Associate Degree Programs
  Associate in Arts
  Associate in Science
  Horticulture Technology
  Interpreter Training

Certificate Programs
  Landscape Management

Departments
  English
  Horticulture
  Interpreter Training
  Mathematics/Sciences
  Social Sciences
Students in the degree, diploma, and certificate programs at Spartanburg Technical College are scheduled for an appropriate number of subjects from the Mathematics/Sciences, English, and Social Sciences departments. Also, students who are not working towards a degree, diploma, or certificate often take subjects from these areas to enhance their basic skills. These general education courses are offered both day and evening.

University Transfer

Associate in Arts
Associate in Science
4 Semesters, Day
6 Semesters, Evening (minimum)

The University Transfer Programs (UTP) are specifically designed for students whose goal is a baccalaureate degree. The UTP programs offer the freshman and sophomore years of study required at many universities and colleges. In either program students must complete courses in math, English, humanities, social sciences, and the natural sciences.

The Associate in Arts Degree (AA) is appropriate for students whose goal is a four-year degree in areas such as education, English, history, business administration, psychology, social work, and physical education.

The Associate in Science Degree (AS) is appropriate for students whose goal is a four-year degree in a math and/or science related field such as biology, chemistry, physics, mathematics, medicine, pharmacy, and engineering.

Admission requirements for the University Transfer Programs include assessment in reading, math, and English skills. In addition, a writing sample is required for placement in English 101, and an algebra assessment is required for placement in college algebra. (Assessment is waived for students with appropriate transfer or advanced placement credits.) To challenge placement in a math course, an exemption exam for the course must be taken prior to the semester in which the student plans to enroll.
Arts and Sciences

The length of time required to complete a University Transfer Program is dependent upon the number of courses the student enrolls in each term. Students are advised to follow the course sequence outlined on their program guide.

University Transfer courses are designed to be accepted at South Carolina public four-year colleges and universities and are accepted by a number of private institutions. However, requirements for specific majors vary among institutions. The student is responsible for checking with the four-year institution he or she plans to attend to determine acceptance of credits. Students should, with the assistance of an academic advisor at Spartanburg Tech, plan their academic programs to meet the requirements of the college to which they desire to transfer. Students must earn a minimum grade of "C" to transfer courses. University Transfer courses are designated with an (*) in the description section of this catalog.

COURSE REQUIREMENTS FOR ASSOCIATE IN ARTS

A. GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>English Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>English Composition II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SPC 205</td>
<td>Public Speaking</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MAT</td>
<td>(transfer level)</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Lab Science</td>
<td></td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>PSY 201</td>
<td>General Psychology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PSC 201</td>
<td>American Government</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Economics</td>
<td>(transfer level)</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>History</td>
<td></td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

B. MAJOR COURSES

15 SHC to be chosen by the student from the following:
ENG, HIS, ECO, PSY, SOC, THE, PHI, and any foreign language

15 0 15
Arts and Sciences

C. ELECTIVES AND OTHER ADDITIONAL HOURS REQUIRED FOR GRADUATION

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT 101</td>
<td>3</td>
</tr>
</tbody>
</table>

15 SHC to be chosen by the student to adapt the program to his/her objectives.

COURSE REQUIREMENTS FOR ASSOCIATE IN SCIENCE

A. GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPC 205 Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Math (transfer level)</td>
<td>6</td>
</tr>
<tr>
<td>PSY 201 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSC 201 American Government</td>
<td>3</td>
</tr>
<tr>
<td>History</td>
<td>3</td>
</tr>
<tr>
<td>Economics (transfer level)</td>
<td>3</td>
</tr>
<tr>
<td>Lab Science</td>
<td>3</td>
</tr>
</tbody>
</table>

B. MAJOR COURSES

15 SHC to be chosen by the student from the following: MAT, ANA, BIO, PHY, CHM, PHS, AST

C. ELECTIVES AND OTHER ADDITIONAL HOURS REQUIRED FOR GRADUATION

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT 101</td>
<td>3</td>
</tr>
</tbody>
</table>

13 SHC to be chosen by the student to adapt the program to his/her objectives.
INTERPRETER TRAINING

ASSOCIATE DEGREE IN PUBLIC SERVICE
4 SEMESTERS

The Interpreter Training Program is a two-year associate degree program which prepares students as beginning interpreters for the hearing impaired. The course work focuses on helping students learn to interpret spoken English into American Sign Language and into Manually Coded English as well as translate American Sign Language and Manually Coded English into spoken English. The learning experience includes role playing and video-taping as well as training in transliteration and voice interpreting. Students have the opportunity to participate in interpreting internships at local agencies and institutions. Additional course work in the program includes written and oral communication skills, psychology, deaf history and culture, and interpreting theory.

Admission requirements for the Interpreter Training Program include assessment in reading, math/algebra and English skills. A writing sample is required for English placement. Placement in American Sign Language classes is determined by an evaluation of the student’s sign language skills. Students who do not possess intermediate level signing skills will be required to complete American Sign Language I and II prior to full acceptance into the Interpreter Training Program.

COURSE REQUIREMENTS FOR INTERPRETER TRAINING
ASSOCIATE IN PUBLIC SERVICE

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. GENERAL EDUCATION COURSES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 101</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PSY 201</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>MAT (transfer level)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>SPC 205</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Sciences</td>
<td>3</td>
<td>0-3</td>
</tr>
<tr>
<td>Humanities/Fine Arts</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td><strong>B. MAJOR COURSES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITP 101</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>ITP 102</td>
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<td>0</td>
</tr>
<tr>
<td>ASL 103</td>
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<tr>
<td>ASL 104</td>
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<td>0</td>
</tr>
<tr>
<td>ITP 104</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>ITP 201</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>
## Arts and Sciences

### C. ELECTIVES AND/OR ADDITIONAL HOURS REQUIRED FOR GRADUATION

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITP 103</td>
<td>Field Experience</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>ITP 105</td>
<td>Mock Interpreting I</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>ITP 200</td>
<td>Psycho/Social Aspects of Deafness</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 204</td>
<td>Interpreting</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 205</td>
<td>Mock Interpreting II</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>ITP 206</td>
<td>Sign to Voice Interpreting</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 208</td>
<td>Transliterating II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 212</td>
<td>Interpreting in Special Settings</td>
<td>3</td>
<td>0</td>
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<tr>
<td>ITP 214</td>
<td>Interpreting Internship</td>
<td>0</td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

*The student must complete two electives which total at least 4 semester credit hours (excluding COL 101).*
HORTICULTURE TECHNOLOGY

Associate Degree - 4 Semesters

Horticulture Technology is a study of applied plant science emphasizing plant production and use. Horticulture provides training for the landscaping industry, nursery and garden center operations, and greenhouse management, as well as the supporting horticulture supply businesses.

Full-time students in this program usually enroll in four or five courses per term which average 21-24 class hours per week or 17 to 18 credit hours per term. Part-time students require more semesters of attendance to graduate. The exact length depends upon semester offerings and the number of courses taken by the student.

Upon registering, each new student should request a semester course outline which describes the courses and the specific semesters in which they are scheduled.

Many of the courses listed require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered by the program advisor or department head. Program requirements for graduation follow.

Practical Application: The Horticulture Technology program includes regular classes, indoor and outdoor lab work, greenhouse work, field trips, and special work projects. An ornamental garden, a nursery area, and three greenhouses are on campus to give students practical experience in their outside labs. These areas are maintained by the Horticulture students.

Job Opportunities: Nursery operations, landscape management, grounds maintenance, landscape installation, parks and forestry services, retail plant sales, garden center management, greenhouse operation, and horticulture supply businesses.

COURSE REQUIREMENTS FOR HORTICULTURE TECHNOLOGY

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 211</td>
<td>Microeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>
Horticulture

ENG 101  English Composition I  3  0  3
IDS 101  Human Thought and Learning  3  0  3
MAT 160  Math for Business and Finance  3  0  3
SPC 205  Public Speaking  3  0  3

B. MAJOR COURSES

HRT 110  Plant Form and Function  3  3  4
HRT 105  Landscape Plant Materials  3  3  4
HRT 125  Soils  3  3  4
HRT 141  Horticulture Pest Control  3  3  4

C. ELECTIVES AND OTHER ADDITIONAL HOURS REQUIRED FOR GRADUATION

HRT 117  Designing with Herb. Plants  3  0  3
HRT 139  Plant Propagation  2  3  3
HRT 102  Landscape Design  3  3  4
HRT 223  Irrigation  3  3  4
HRT 253  Landscape Installation  3  3  4
HRT 241  Turf Management  3  0  3
HRT 256  Landscape Management  3  3  4
HRT 231  Nursery Technology  3  3  4
HRT 230  Greenhouse Technology  3  3  4

*Electives
Each student must take two electives which total at least 4 credit hours (excluding COL 101).

LANDSCAPE MANAGEMENT

Certificate - 18 Months; Evening

The Landscape Management Certificate is offered by the Horticulture Department for evening students who wish to take courses in the specific area of Landscape Maintenance and Management. The objective of this certificate is to create confidence and professionalism in the landscaper and nursery worker by broadening his horticultural knowledge and by increasing his exposure to modern techniques and materials used in landscape management.
The certificate is designed especially for those individuals who are already employed in landscape management and nursery businesses or who wish some training in this area. This certificate is offered only at night to accommodate individuals presently working in this industry. The courses are all offered as "credit" courses and can be applied toward the daytime Associate Degree in Horticulture. The Horticulture Advisory Committee selected courses for this certificate that would provide practical applications for the student.

Students can enroll in the certificate at the beginning of any term. In most cases, a student will need to attend classes two nights a week in order to complete the certificate in two years. The cost of the courses is based on credit hours.

Practical Application: The Landscape Management program includes regular classes and special projects. An ornamental garden and adjacent grounds provide students opportunities for observation and study.

Job Opportunities: Enhancement of job skills for currently employed landscape management personnel as well as for individuals desiring to enter the landscape management field and nursery fields.

### Course Requirements for Landscape Management

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. GENERAL EDUCATION COURSES</td>
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<td></td>
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</tr>
<tr>
<td>None</td>
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<td>B. MAJOR COURSES</td>
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<tr>
<td>HRT 104 Landscape Design</td>
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<td>HRT 108 Annuals and Perennials</td>
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<td>HRT 113 Plant Materials</td>
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<td>HRT 144 Plant Pests</td>
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<td>HRT 154 Grounds Maintenance</td>
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<td>HRT 209 Horticulture Management</td>
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<td>HRT 241 Turf Management</td>
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<td>C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION</td>
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</table>
BUSINESS DIVISION

Associate Degree Programs
  Accounting
  Computer Technology
  Management
  Marketing
  Office Systems Technology

Diploma Programs
  Automated Office
  Computer Operations
Business

ACCOUNTING

Associate Degree
21 Months; Day
24 Months; Evening

Accounting students are provided the opportunity to develop the skills required to satisfy informational needs of intracompany and intercompany individuals and organizations by analyzing, recording, summarizing, and reporting accounting information. A comprehensive study of financial and managerial applications will include individual income tax procedures, cost and budgeting analysis and automated accounting systems. Students will be exposed to the latest techniques in standard costing, variance analysis, and inventory management.

In order to graduate, full-time students enrolled in this program usually enroll in five courses per term which equates to 15 credit hours and 15 class hours per week. Additional hours in the computer and/or accounting lab are required in some terms. Students will be required to attend one or more summer terms to complete associate degree requirements. Part-time students usually require more terms of attendance to graduate, with the exact length of attendance dependent upon semester offerings and the number of courses taken by the student. Upon registering, each new student should request a semester course outline which lists the required courses and the specific term in which they are scheduled.

New students beginning a program in Spring or Summer Semesters may be unable to schedule a full load of courses and graduate in the normal length of the program since course scheduling is designed for new students entering in Fall Semester. Many of the courses listed below require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog. Many courses require a final grade of "C" or better in order to register for advanced courses. These courses are also noted in the course descriptions. In addition, many courses require a grade of "C" or better to apply toward graduation. These courses are indicated under course requirements.

Any questions concerning scheduling of courses or graduation requirements can be answered by the program advisor or the department head. Program requirements for graduation are listed on the following page.

Practical Application: Accounting students complete accounting simulations using microcomputers, develop accounting models using spreadsheet software, perform accounting applications using integrated accounting software, and develop financial forecasts from historical analysis. The development of analytical, time management, interpersonal and communication skills is stressed.

Job Opportunities: Accounting clerk, junior accountant, payroll clerk, accounting supervisor, junior cost accountant, tax preparer, and public accountant.
## Business

### COURSE REQUIREMENTS
FOR ACCOUNTING

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td><strong>A. GENERAL EDUCATION COURSES</strong></td>
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<tr>
<td>ECO 210 Macroeconomics</td>
<td>3</td>
</tr>
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<td>ENG 101 English Composition I*</td>
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</tr>
<tr>
<td>ENG 102 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MAT 102 Intermediate Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MAT 120 Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MAT 160 Math for Business &amp; Finance*</td>
<td>3</td>
</tr>
<tr>
<td>SPC 205 Public Speaking</td>
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<tr>
<td><strong>B. MAJOR COURSES</strong></td>
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</tr>
<tr>
<td>ACC 101 Accounting Principles I*</td>
<td>2</td>
</tr>
<tr>
<td>ACC 102 Accounting Principles II*</td>
<td>2</td>
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<tr>
<td>ACC 124 Individual Tax Procedures*</td>
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<tr>
<td>ACC 201 Intermediate Accounting I*</td>
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</tr>
<tr>
<td>ACC 202 Intermediate Accounting II*</td>
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</tr>
<tr>
<td>ACC 230 Cost Accounting I*</td>
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<tr>
<td>ACC 231 Cost Accounting II*</td>
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<td>ACC 240 Computerized Accounting*</td>
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<td>BAF 260 Financial Management*</td>
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<tr>
<td>BUS 121 Business Law I*</td>
<td>3</td>
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<tr>
<td>CPT 101 Introduction to Computers*</td>
<td>3</td>
</tr>
<tr>
<td>CPT 107 File Entry Operations</td>
<td>3</td>
</tr>
<tr>
<td>CPT 170 Microcomputer Applications*</td>
<td>3</td>
</tr>
<tr>
<td>MGT 101 Principles of Management*</td>
<td>3</td>
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<tr>
<td><strong>C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES</strong></td>
<td></td>
</tr>
<tr>
<td>REQUIRED FOR GRADUATION</td>
<td></td>
</tr>
</tbody>
</table>

The student must complete two elective courses which total at least 4 credit hours (excluding COL 101).

*A grade of "C" or better is required.
AUTOMATED OFFICE

Diploma
12 months; Day
15-18 months; Evening(+)

This curriculum prepares students for entry-level clerical office positions. The program provides students the opportunity to develop skills in word processing, machine transcription, filing, accounting, proper telephone techniques, and training on electronic typewriters and calculators. Persons with these skills are essential for offices and are in great demand in business, industry and government offices.

In order to graduate, full-time students in this program usually enroll in five courses per term which equate to 15 class hours per week or 15 credit hours per term. Additional lab hours may be required to complete assigned projects and practice skills. Attendance during one summer term will be required to complete program requirements. Part-time students may require more terms of attendance to graduate, with the exact length dependent upon semester offerings and the number of courses taken by the student. Upon registering, each new student should request a semester course outline which describes the courses and the specific term in which they are scheduled.

New students beginning a program in Spring or Summer Semesters may be unable to schedule a full load of courses and graduate in the normal length of the program since course scheduling is designed for new students entering in Fall Semester. Many of the courses listed below require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog. Many courses require a final grade of "C" or better in order to register for more advanced courses. The courses are also noted in the course descriptions. In addition, many major courses require a grade of "C" or better to apply toward graduation. These courses are indicated under course requirements.

Any questions concerning scheduling of courses or graduation requirements can be answered by the program advisor or department head. Program requirements for graduation are listed below.

Practical Application: Automated Office students complete class projects using up-to-date equipment similar to that found in businesses and industries. Microcomputers are used to complete word processing projects. The development of communication and problem-solving skills will be stressed.

Job Opportunities: Clerk typist, typist, receptionist, office clerk, and file clerk.

(+): The availability of evening courses is subject to demand. Courses are offered on an irregular basis.
### COURSE REQUIREMENTS FOR AUTOMATED OFFICE

<table>
<thead>
<tr>
<th></th>
<th>Class</th>
<th>Lab</th>
<th>Credit</th>
<th>Hours</th>
</tr>
</thead>
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#### A. GENERAL EDUCATION COURSES

<table>
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<th>Course</th>
<th>Description</th>
<th>Credit</th>
<th>Lab</th>
<th>Hours</th>
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<td>ENG 165</td>
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<tr>
<td>IDS 101</td>
<td>Human Thought and Learning</td>
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<td>0</td>
<td>3</td>
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<tr>
<td>MAT 160</td>
<td>Math for Business and Finance*</td>
<td>3</td>
<td>0</td>
<td>3</td>
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</tbody>
</table>

#### B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 111</td>
<td>Accounting Concepts</td>
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<td>3</td>
</tr>
<tr>
<td>CPT 101</td>
<td>Introduction to Computers</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>OST 105</td>
<td>Keyboarding*</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting*</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>OST 121</td>
<td>Machine Transcription*</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>OST 141</td>
<td>Office Procedures I*</td>
<td>3</td>
<td>0</td>
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<td>OST 165</td>
<td>Information Processing Software*</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>OST 167</td>
<td>Information Processing Appl.*</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OST 210</td>
<td>Document Production*</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OST 221</td>
<td>Advanced Machine Transcription*</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OST 251</td>
<td>Admin. Systems and Procedures *</td>
<td>3</td>
<td>0</td>
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</tr>
</tbody>
</table>

#### C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

None

*A grade of "C" or better is required.*
This curriculum prepares students to be microcomputer specialists. Graduates are well versed in microcomputer operations, with an emphasis on microcomputer based software such as spreadsheet, data base and word processing software. In addition, students learn operating system concepts, control languages, and the use of utility programs.

In order to graduate, full-time students in this program usually enroll in five courses per term, which equate to 15 credit hours and 15 class hours per week. In addition, students will be expected to spend between 5 and 10 hours per week outside of class in the computer lab to complete projects. Attendance during one summer term will be required to complete program requirements. Part-time students usually require more terms of attendance to graduate, with the exact length of attendance dependent upon semester offerings and the number of courses taken by the student. Upon registering, each new student should request a semester course outline which lists the courses and the specific term in which they are scheduled.

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Any questions concerning scheduling of courses or graduation requirements can be answered by the program advisor or department head. Program requirements for graduation are listed below.

Practical Application: The program emphasizes hands-on training using IBM microcomputers or compatibles. Many projects will be completed using current software commonly used in business. The course of study also examines the operation of a data processing department and its contribution to the entire information system. The development of logical thinking and communication skills is stressed.

Job Opportunities: Microcomputer specialist, and business application software specialist.
## Course Requirements for Computer Operations

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>English Composition I*</td>
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<td>0</td>
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<tr>
<td>ENG 170</td>
<td>Business Communications</td>
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<tr>
<td>IDS 101</td>
<td>Human Thought and Learning</td>
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<td>0</td>
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<tr>
<td>MAT 101</td>
<td>Beginning Algebra</td>
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<tr>
<td>MAT 160</td>
<td>Math for Business and Finance*</td>
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### B. Major Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
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<tr>
<td>ACC 101</td>
<td>Accounting Principles I*</td>
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<td>3</td>
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<tr>
<td>CPT 107</td>
<td>File Entry Operations*</td>
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<tr>
<td>CPT 114</td>
<td>Computers and Programming*</td>
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<td>CPT 172</td>
<td>Microcomputer Data Base*</td>
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<td>CPT 174</td>
<td>Microcomputer Spreadsheet*</td>
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<td>CPT 255</td>
<td>Operating Systems Fundamentals*</td>
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<td>CPT 270</td>
<td>Advanced Microcomputer Appl.*</td>
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<td>MGT 105</td>
<td>Survey of Management</td>
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</table>

### C. Electives and/or Other Additional Courses Required for Graduation

None

*A grade of "C" or better is required.
Computer Technology students are given the opportunity to develop skills in computer programming, microcomputer operations, system analysis and design, computer software applications, and how to best utilize them in the business environment. Since they receive training using up-to-date computer equipment, graduates of this program have excellent job opportunities.

In order to graduate, full-time students in this program usually enroll in five courses per term which equates to 15 credit hours and 15 class hours per week with additional assigned lab hours. Students will be required to attend one or more summer terms to complete associate degree requirements. Part-time students usually require more terms of attendance to graduate. The exact length of attendance depends upon semester offerings and the number of courses taken by the student. Upon registering, each new student should request a semester course outline which lists the required courses and the specific term in which they are scheduled.

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Any questions concerning scheduling of courses or graduation requirements can be answered by the program advisor or the department head. Program requirements for graduation are listed below.

Practical Application: The Computer Technology associate degree offers practical experience in COBOL and RPG III programming languages by completing many projects assigned in the computer lab. Students will learn how to program and operate microcomputers and the IBM AS400 minicomputer. The development of logical thinking and communication skills is stressed.

Job Opportunities: Trainee programmers, entry-level programmers, junior programmers, programmer analyst, system analyst and computer operators.
## COURSE REQUIREMENTS FOR COMPUTER TECHNOLOGY

### A. GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
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<tbody>
<tr>
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<td>Macroeconomics</td>
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<td>ENG 101</td>
<td>English Composition I*</td>
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<tr>
<td>ENG 102</td>
<td>English Composition II</td>
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<tr>
<td>MAT 102</td>
<td>Intermediate Algebra</td>
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<tr>
<td>MAT 160</td>
<td>Math for Business and Finance*</td>
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<tr>
<td>SPC 205</td>
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### B. MAJOR COURSES

<table>
<thead>
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<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
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<td>ACC 102</td>
<td>Principles of Accounting II*</td>
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<td>CPT 107</td>
<td>File Entry Operations*</td>
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<td>CPT 114</td>
<td>Computers and Programming*</td>
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<td>CPT 115</td>
<td>COBOL Programming I*</td>
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<td>CPT 121</td>
<td>RPG Programming I*</td>
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<td>Programming Logic and Design*</td>
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<td>CPT 174</td>
<td>Microcomputer Spreadsheet*</td>
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<td>CPT 215</td>
<td>COBOL Programming II*</td>
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<td>CPT 221</td>
<td>RPG Programming II*</td>
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<tr>
<td>CPT 242</td>
<td>Data Base*</td>
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<td>CPT 244</td>
<td>Data Structures*</td>
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<td>CPT 257</td>
<td>Operating Systems*</td>
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<td>Systems and Procedures*</td>
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<td>IST 220</td>
<td>Data Communications*</td>
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<tr>
<td>MGT 101</td>
<td>Principles of Management*</td>
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</tbody>
</table>

### C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 4 credit hours (excluding COL 101).

* A grade of "C" or better is required.

** Prerequisite algebra courses may be required for placement that was determined by the ASSET algebra entrance test.
Management students are provided the opportunity to develop skills to effectively plan, organize, lead, and control the activities of an organization and its resources to meet desired goals. Focus will be placed on personnel administration, production management, first-line supervision, and small business management, as well as management information systems.

In order to graduate, full-time students in this program usually enroll in five courses per term which equates to 15 credit hours and 15 class hours per week. Additional hours in the computer and/or accounting lab are required in some terms. Students will be required to attend one or more summer terms to complete associate degree requirements. Part-time students usually require more terms of attendance to graduate, with the exact length of attendance dependent upon semester offerings and the number of courses taken by the student. Upon registering, each new student should request a semester course outline which lists the required courses and the specific term in which they are scheduled.

New students beginning a program in Spring or Summer Semesters may be unable to schedule a full load of courses and graduate in the normal length of the program since course scheduling is designed for new students entering in Fall Semester. Many of the courses listed below require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog. Many courses require a final grade of "C" or better in order to register for advanced courses. These courses are also noted in the course descriptions. In addition, many courses require a grade of "C" or better to apply toward graduation. These courses are indicated under course requirements.

Any questions concerning scheduling of courses or graduation requirements can be answered by the program advisor or the department head. Program requirements for graduation are listed on the following page.

Practical Applications: Management students simulate the development and organization of a small business, complete a research project on a management topic and complete an accounting simulation using microcomputers. The development of communication and interpersonal skills is stressed and case studies are used to enhance analytical and problem solving abilities as they relate to business situations.

Job Opportunities: Management trainee, office manager, shift supervisor (production), retail manager trainee.
## Business

### COURSE REQUIREMENTS FOR MANAGEMENT

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
</thead>
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<td></td>
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### A. GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
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<td>MGT 101</td>
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### C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 4 credit hours (excluding COL 101).

*A grade of "C" or better is required.*
Marketing students are provided the opportunity to develop marketing and sales skills. Emphasis will be placed on developing sales strategies to maximize revenues through effective product development, pricing, promotion and placement in the market. Attention will also be given to retailing, advertising, consumer needs, and customer service skills.

In order to graduate, full-time students enrolled in this program usually enroll in five courses per term which equates to 15 credit hours and 15 class hours per week. Additional hours in the computer and/or accounting lab are required in some terms. Students will be required to attend one or more summer terms to complete associate degree requirements. Part-time students usually require more terms of attendance to graduate, with the exact length of attendance dependent upon semester offerings and the number of courses taken by the student. Upon registering, each new student should request a semester course outline which lists the required courses and the specific term in which they are scheduled.

New students beginning a program in Spring or Summer Semesters may be unable to schedule a full load of courses and graduate in the normal length of the program since course scheduling is designed for new students entering in Fall Semester. Many of the courses listed below require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog. Many courses require a final grade of "C" or better in order to register for advanced courses. These courses are also noted in the course descriptions. In addition, many courses require a grade of "C" or better to apply toward graduation. These courses are indicated under course requirements.

Any questions concerning scheduling of courses or graduation requirements can be answered by the program advisor or the department head. Program requirements for graduation are listed below.

Practical Applications: Marketing students develop an advertising campaign, make several sales presentations, and conduct a market research survey. The development of interpersonal and communication skills is stressed.

Job Opportunities: Salesperson, sales manager trainee, retail manager trainee, advertising salesperson, marketing information specialist, and customer service representative.
# COURSE REQUIREMENTS FOR MARKETING

<table>
<thead>
<tr>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
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## A. GENERAL EDUCATION COURSES

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<th>Course</th>
<th>Title</th>
<th>Credit</th>
<th>Lab</th>
<th>Hours</th>
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<td>ECO 210</td>
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<td>ENG 102</td>
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<td>MAT 102</td>
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<td>MAT 120</td>
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## B. MAJOR COURSES

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<td>ACC 101</td>
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<td>CPT 101</td>
<td>Introduction to Computers*</td>
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<td>CPT 107</td>
<td>File Entry Operations</td>
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<td>CPT 170</td>
<td>Microcomputer Applications*</td>
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<td>MGT 101</td>
<td>Principles of Management*</td>
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<tr>
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<td>Marketing*</td>
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<td>MKT 110</td>
<td>Retailing*</td>
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<td>Sales Principles*</td>
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<td>MKT 135</td>
<td>Customer Service Skills*</td>
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<td>MKT 221</td>
<td>Sales Strategies*</td>
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<tr>
<td>MKT 250</td>
<td>Consumer Behavior*</td>
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## C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 4 credit hours (excluding COL 101).

*A grade of "C" or better is required.
Business

OFFICE SYSTEMS TECHNOLOGY

Associate Degree
21 months; Day
24-36 months; Evening(+)

This curriculum prepares students to be executive secretaries or administrative assistants. The program provides students the opportunity to develop skills in shorthand, word processing, machine transcription, filing, accounting, proper telephone techniques, and training on electronic typewriters and calculators. Students gain a thorough knowledge of office procedures by completing simulations on up-to-date equipment.

In order to graduate, full-time students enrolled in this program usually enroll in five courses per term which equates to 15 class hours per week or 15 credit hours. Additional lab hours may be required to complete assigned projects and practice skills. Part-time students will require more terms of attendance to graduate, with the exact length dependent upon semester offerings and the number of courses taken by the student. Upon registering, each new student should request a semester course outline which describes the courses and the specific terms in which they are scheduled.

New students beginning a program in Spring or Summer Semesters may be unable to schedule a full load of courses or may not be able to graduate in the normal length of the program since course scheduling is designed for new students entering in Fall Semester. Many of the courses listed below require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog. Many courses require a final grade of "C" or better in order to register for more advanced courses. These courses are also noted in the course descriptions. In addition, many major courses require a grade of "C" or better to apply toward graduation. These courses are indicated under course requirements.

Any questions concerning scheduling of courses or graduation requirements can be answered by the program advisor or department head. Program requirements for graduation are listed below.

Practical Application: Office Systems Technology students complete class projects using up-to-date equipment similar to that found in business and industry. Microcomputers are used to complete word processing projects. The development of communication and problem-solving skills will be stressed.

Job Opportunities: Secretary, administrative assistant and executive secretary.

(+). The availability of evening courses is subject to demand. Courses are offered on an irregular basis.
COURSE REQUIREMENTS FOR OFFICE SYSTEMS TECHNOLOGY

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
</thead>
</table>

### A. GENERAL EDUCATION COURSES

<table>
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<th>Course</th>
<th>Title</th>
<th>Credit</th>
<th>Hours</th>
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<tr>
<td>ENG 165</td>
<td>Professional Communications*</td>
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<td>ENG 170</td>
<td>Business Communications*</td>
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<td>IDS 101</td>
<td>Human Thought and Learning</td>
<td>3</td>
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<td>MAT 160</td>
<td>Math for Business and Finance*</td>
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<tr>
<td>MAT 165</td>
<td>Statistics</td>
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### B. MAJOR COURSES

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<th>Course</th>
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<td>ACC 111</td>
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<td>Introduction to Computers</td>
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<td>OST 105</td>
<td>Keyboarding*</td>
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<td>OST 110</td>
<td>Document Formatting*</td>
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<td>OST 121</td>
<td>Machine Transcription*</td>
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<td>OST 131</td>
<td>Shorthand I*</td>
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<td>OST 132</td>
<td>Shorthand II*</td>
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<td>OST 165</td>
<td>Information Processing Software*</td>
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<td>Advanced Machine Transcription</td>
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<td>OST 251</td>
<td>Admin. Systems and Procedures*</td>
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### C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 6 credit hours.

*A grade of "C" or better is required.
Engineering Technology
ENGINEERING TECHNOLOGY

Associate Degree Programs
Civil Engineering Technology
Electronics Engineering Technology
Electronics Engineering Technology
  Technical Scholars Option
Engineering Graphics Technology
  Mechanical Drafting Option
Engineering Graphics Technology
  Architectural Drafting Option
General Engineering Technology
Mechanical Engineering Technology
Mechanical Engineering Technology
  Technical Scholars Option
Textile Management Technology

Certificate Programs
Architectural Computer Aided Drafting
Mechanical Computer Aided Drafting
Quality Assurance
Engineering Technology

ARCHITECTURAL COMPUTER AIDED DRAFTING

Certificate- Day; 16 Months
Evening; 24 Months

In the Architectural Computer Aided Drafting Certificate program, a person will obtain a basic knowledge of architectural drafting. Emphasis will be on the application of computer aided drafting in the field of architectural drafting.

Upon completion of this curriculum, a person may seek employment as a drafter or they may continue their education at Spartanburg Technical College as a second year student in Engineering Graphics Technology, Architectural Computer Aided Drafting.

This program can also be used to upgrade experienced drafters and designers on CAD systems used by architectural engineering construction and design/building firms in our area.

Upon registering, each new student should request a semester course outline which describes the courses and specific term in which they are scheduled. Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements are listed below. Upon completion of 39 semester credit hours, the graduate will be awarded a certificate in Architectural Computer Aided Drafting.

COURSE REQUIREMENTS FOR
ARCHITECTURAL COMPUTER AIDED DRAFTING

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Class</th>
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B. MAJOR COURSES

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<td>AET 221</td>
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<td>CET 120</td>
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<td>Intro. To Engineering Tech.</td>
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ASSOCIATE IN ENGINEERING TECHNOLOGY
MAJOR IN CIVIL ENGINEERING TECHNOLOGY

Associate Degree - 21 Months; Day

Civil Engineering Technicians do a variety of work related to the construction of buildings, bridges, highways, and water lines. Some Civil Engineering Technicians work as surveyors measuring the land, for instance, to lay out lots in a housing development. Others work in laboratories testing soil to determine, for example, whether the earth in a particular location can support a bridge footing. Still other Civil Engineering Technicians work for architectural and engineering firms, doing drafting and design work and estimating construction costs. Entry level technicians do fairly routine work under an engineer's supervision. There is good opportunity for technicians to advance to become supervisors and managers.

In order to graduate, full-time students enrolled in this program usually enroll in four or five courses per term which average 26 class hours per week or 17 credit hours per term. Part-time students usually require more terms of attendance to graduate. The exact length depends upon semester offerings and the number of courses taken by the student.

Upon registering, each new student should request a semester course outline which describes the courses and the specific terms in which they are scheduled.

Many of the courses listed below require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.
Engineering Technology

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation are listed below. Upon completion of 77 semester hours, the graduate will be awarded an associate's degree in Engineering Technology.

Accreditation: Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Practical Application: Students in Civil Engineering Technology are involved in many practical experiences. Among them are boundary and road surveys, soil and materials testing, and construction inspection.

Job Opportunities: Soils technician, designer, draftsperson, inspector, survey party chief, construction foreman, civil engineer's assistant, project manager, technician, civil engineering technician, structural detailer, engineering aide, survey instrument man, estimator, engineer associate, design technician, and construction superintendent.

COURSE REQUIREMENTS FOR CIVIL ENGINEERING TECHNOLOGY

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
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A. GENERAL EDUCATION COURSES

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<td>HSS 205</td>
<td>Technology &amp; Society</td>
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B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tr>
<td>CET 105</td>
<td>Surveying I</td>
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<td>Construction Materials</td>
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<tr>
<td>CET 135</td>
<td>Construction Contracts</td>
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<td>CET 205</td>
<td>Surveying II</td>
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<tr>
<td>CET 216</td>
<td>Soil Mechanics</td>
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</tbody>
</table>
C. ELECTIVES AND OR/OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION:

The students must complete two elective courses which total at least 4 credit hours (excluding COL 101).

ASSOCIATE IN ENGINEERING TECHNOLOGY
MAJOR IN ELECTRONICS ENGINEERING TECHNOLOGY

Associate Degree - 60 Months; Evening
21 Months; Day

Electronics Engineering Technicians help engineers by building and testing the electronics equipment which the engineer has designed. They may work for a computer company where they install, maintain, and repair computers, or they may work for a television station where they maintain audio and video equipment. Some technicians work in manufacturing plants where they help design, build, and repair the electronic instruments that control the operation of production machines. Others work as a manufacturer’s representative or salesperson.

Full-time students enrolled in this program usually enroll in four or five courses per term which average 22 class hours per week or 17 credit hours per term. Part-time students usually require more terms of attendance to graduate. The exact length depends upon semester offerings and the number of courses taken by the student.

Upon registering, each new student should request a semester course outline which describes the courses and the specific semesters in which they are scheduled.
Engineering Technology

Many of the courses listed below and on the following page require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation are listed below and on the following page. Upon completion of 84 semester credit hours, the graduate will be awarded an associate's degree in Engineering Technology.

Accreditation: Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Practical Application: The Electronics Engineering Technology Department features labs with almost every course. Among the labs included in the department are D.C. circuits, A.C. circuits, active devices, electrical machinery, communications electronics, and microprocessors.

Job Opportunities: Computer technician, customer engineer, assistant engineer, radar technician, chief operator and engineer - radio and TV stations, communications technician, development technician, field engineering technician, electrical machinery technician, quality control inspector/technician, assistant production engineer, microwave technician, thin-film technologist, nuclear instrumentation technician, electronic repair technician, electronic sales representative, and technical writer.

COURSE REQUIREMENTS FOR ELECTRONICS ENGINEERING TECHNOLOGY

<table>
<thead>
<tr>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
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<tbody>
<tr>
<td>A. GENERAL EDUCATION COURSES</td>
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</tr>
<tr>
<td>ENG 101</td>
<td>English Composition I</td>
<td>3</td>
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<tr>
<td>ENG 102</td>
<td>English Composition II</td>
<td>3</td>
<td>0</td>
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<tr>
<td>HSS 205</td>
<td>Technology &amp; Society</td>
<td>3</td>
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</tr>
<tr>
<td>MAT 178</td>
<td>Technical Math I</td>
<td>5</td>
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<tr>
<td>MAT 179</td>
<td>Technical Math II</td>
<td>5</td>
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</tr>
<tr>
<td>PHY 201</td>
<td>Physics I</td>
<td>3</td>
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<td>PSY 103</td>
<td>Human Relations</td>
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ENGINEERING TECHNOLOGY

B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
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<td>EET 112</td>
<td>A. C. Circuits</td>
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<td>3</td>
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</tr>
<tr>
<td>EET 131</td>
<td>Active Devices</td>
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<td>EET 141</td>
<td>Electronic Circuits</td>
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<td>EET 145</td>
<td>Digital Circuits</td>
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<td>EET 220</td>
<td>Analog Integrated Circuits</td>
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<td>3</td>
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<td>EET 227</td>
<td>Electrical Machinery</td>
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<td>EET 231</td>
<td>Industrial Electronics</td>
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<td>EET 241</td>
<td>Electronic Communications</td>
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<td>EET 251</td>
<td>Microprocessor Fundamentals</td>
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<td>EET 255</td>
<td>Advanced Microprocessors</td>
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<td>EET 261</td>
<td>Electronic Troubleshooting</td>
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<td>EET 271</td>
<td>Circuit Assembly</td>
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<tr>
<td>EGR 112</td>
<td>Engineering Programming</td>
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</table>

C. ELECTIVES AND OR/OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION:

The students must complete two elective courses which total at least 4 credit hours (excluding COL 101).

ASSOCIATE IN ENGINEERING TECHNOLOGY
MAJOR IN ELECTRONICS ENGINEERING TECHNOLOGY

TECHNICAL SCHOLARS
Associate Degree - 36 Months; Day

The Technical Scholars program selects students meeting specific eligibility requirements for Electronics Engineering Technology - Technical Scholars Option. Students attend class and are sponsored by an industry for class-related work experience at the sponsoring industry site for part of each week. See "Technical Scholars" in this catalog for more information.
Engineering Technology

ASSOCIATE IN ENGINEERING TECHNOLOGY
MAJOR IN ENGINEERING GRAPHICS TECHNOLOGY
(with Mechanical Computer Aided Drafting)

Associate Degree - 21 Months; Day
48 Months; Evening

Engineering Graphics Technicians are highly skilled drafters. They draw assembly drawings, machine parts, and electrical instruments. Manufacturing plants rely on them to translate the sketches or plans of an engineer into detailed drawings. These Engineering Graphics Technicians specialize in mechanical drawing or pipe drawing and work for manufacturing companies or engineering firms.

Full-time students enrolled in this program usually enroll an average of 24 class hours per week or 17 credit hours per term. Part-time students usually require more terms of attendance to graduate. The exact length depends upon semester offerings and the number of courses taken by the student.

Upon registering, each new student should request a semester course outline which describes the courses and the specific terms in which they are scheduled.

Many of the courses listed on the following page require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation are listed on the following page. Upon completion of 82 semester credit hours, the graduate will be awarded an associate's degree in Engineering Technology.

Practical Application: Engineering Graphics Technology students gain practical experience in drawing, drafting and computer-assisted drafting (CAD). In addition, they perform tests to compare the strength of materials. Also, Engineering Graphics Technology students look at the application of engineering graphics in the Civil, Electronics, and Mechanical Engineering Technology fields.

Job Opportunities: Computer-aided drafting, tracer, junior detailer, senior detailer, checker, junior designer, senior designer, chief draftsman, industrial designer, tool designer, technical illustrator, cartographer, drafting instructor, and technician.
# Engineering Technology

## COURSE REQUIREMENTS FOR

**ENGINEERING GRAPHICS TECHNOLOGY WITH MECHANICAL COMPUTER AIDED DRAFTING**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>English Composition I</td>
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<tr>
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<tr>
<td>HSS 205</td>
<td>Technology &amp; Society</td>
<td>3</td>
<td>0</td>
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<tr>
<td>IDS 101</td>
<td>Human Thought &amp; Learning</td>
<td>3</td>
<td>0</td>
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</tr>
<tr>
<td>MAT 178</td>
<td>Technical Math I</td>
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<td>0</td>
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<td>MAT 179</td>
<td>Technical Math II</td>
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<tr>
<td>PHY 201</td>
<td>Physics I</td>
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### A. GENERAL EDUCATION COURSES

### B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
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<tbody>
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<td>EGR 101</td>
<td>Intro. to Engineering Technology</td>
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<td>EGR 112</td>
<td>Engineering Programming</td>
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<td>EGR 170</td>
<td>Engineering Materials</td>
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<td>EGR 175</td>
<td>Manufacturing Processes</td>
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<td>EGR 190</td>
<td>Statics</td>
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<td>EGT 106</td>
<td>Print Reading &amp; Sketching</td>
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<td>EGT 110</td>
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<td>6</td>
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<td>EGT 115</td>
<td>Engineering Graphics II</td>
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<td>EGT 125</td>
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<td>EGT 151</td>
<td>Intro. to CAD</td>
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<td>EGT 155</td>
<td>Intermediate CAD</td>
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<td>EGT 210</td>
<td>Engineering Graphics III</td>
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<td>EGT 215</td>
<td>Mechanical Drawing Applications</td>
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<td>6</td>
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<tr>
<td>EGT 220</td>
<td>Structural &amp; Piping Applications</td>
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<td>Strength of Materials</td>
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<td>MET 214</td>
<td>Fluid Mechanics</td>
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</table>

### C. ELECTIVES AND OR/OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION:

The students must complete two elective courses which total at least 4 credit hours (excluding COL 101).
Engineering Technology

ASSOCIATE IN ENGINEERING TECHNOLOGY
MAJOR IN ENGINEERING GRAPHICS TECHNOLOGY
(with Architectural Computer Aided Drafting)

Associate Degree - 21 Months; Day
48 Months; Evening

This program will teach the student how to utilize computer driven drafting/design systems in an Architectural Engineering/Construction environment. They will obtain training in architectural detailing, do analysis of structural and mechanical systems, and study building codes. They will take architectural design concepts and convert them to construction documents in order to construct a building that conforms with established design, budget, and codes. They will be trained to produce finished construction drawings from sketches, verbal descriptions, or raw data, and check their work to see that it meets appropriate codes and design criteria. These technicians will receive instruction in the preparation of construction documents on computer aided drafting/design systems.

Full-time students enrolled in this program usually enroll an average of 24 class hours per week or 17 credit hours per term. Part-time students usually require more terms of attendance to graduate. The exact length depends upon semester offerings and the number of courses taken by the student.

Upon registering, each new student should request a semester course outline which describes the courses and the specific semesters in which they are scheduled.

Many of the courses listed on the following page require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation are listed below. Upon completion of 80 term credit hours, the graduate will be awarded an associate's degree in Engineering Technology.

Practical Application: Engineering Graphics Technology students gain practical experience in drawing, drafting and computer-assisted drafting (CAD). In addition, they perform tests to compare the strength of materials. Also, Engineering Graphics and Engineering Graphics Technology students look at the application of engineering graphics in the Civil, Electronics, and Mechanical Engineering Technology fields.
Job Opportunities: Computer Aided drafters, junior detailer, detailer, checker, junior designer, senior designer, chief draftsman, architectural drafter, technical illustrator, drafting instructor and technician.

### COURSE REQUIREMENTS FOR ENGINEERING GRAPHICS TECHNOLOGY WITH ARCHITECTURAL COMPUTER AIDED DRAFTING

<table>
<thead>
<tr>
<th>A. GENERAL EDUCATION COURSES</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Class</td>
<td>Lab</td>
</tr>
<tr>
<td>ENG 101 English Composition I</td>
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<tr>
<td>ENG 102 English Composition II</td>
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<td>HSS 205 Technology &amp; Society</td>
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<td>IDS 101 Human Thought &amp; Learning</td>
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<td>MAT 178 Technical Math I</td>
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<td>MAT 179 Technical Math II</td>
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<td>PHY 201 Physics I</td>
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<tr>
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<tr>
<td>Class</td>
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<tr>
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<td>AET 111 Arch. Comp. Graphics I</td>
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<td>AET 120 Arch. Graphics II</td>
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<td>AET 221 Arch. Comp. Graphics II</td>
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<td>AET 247 Mfg. of Prefab Structures</td>
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<td>BCT 112 Construction Print Reading</td>
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<td>CET 102 Fundamentals of Surveying</td>
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<td>CET 120 Construction Materials</td>
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<td>CET 135 Construction Contracts</td>
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<td>CET 235 Constr. Methods &amp; Estimating</td>
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### Engineering Technology

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<td>EGR 194</td>
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<td>MET 214</td>
<td>Fluid Mechanics</td>
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<td>MET 222</td>
<td>Thermodynamics</td>
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<td>MET 232</td>
<td>Air Conditioning</td>
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</table>

C. ELECTIVES AND OR/OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION:

The students must complete two elective courses which total at least 4 credit hours (excluding COL 101).

### ASSOCIATE IN ENGINEERING TECHNOLOGY

**MAJOR IN GENERAL ENGINEERING TECHNOLOGY**

**Associate Degree - Day; 21 Months**  
**Evening; 48 Months**

General Engineering Technology deals with a combination of Mechanical, Civil, and Electronics Engineering Technologies. Graduates of this program are generalists and not specialists. Equipment used in the program includes electronic circuits, surveying equipment, and mechanical equipment. As generalists rather than specialists, students gain practical experience in the Civil, Mechanical, and Electronics Engineering Technology fields.

Full-time students enrolled in this program usually enroll in four or five courses per term which average 22 class hours per week or 17 credit hours per term. Part-time students usually require more terms of attendance to graduate. The exact length depends upon semester offerings and the number of courses taken by the student.

Upon registering, each new student should request a semester course outline which describes the courses and the specific terms in which they are scheduled.

Many of the courses listed below require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation are listed below. Upon completion of 73 semester credit hours, the graduate will be awarded an associate's degree in Engineering Technology.
Practical Application: Students gain practical experience in the Civil, Mechanical, and Electronics Engineering Technology fields.

Job Opportunities: Technician, engineering technician, draftsman, inspector, engineering aide, design technician, foreman, and engineer associate.

## COURSE REQUIREMENTS FOR GENERAL ENGINEERING TECHNOLOGY

<table>
<thead>
<tr>
<th>A GENERAL EDUCATION COURSES</th>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
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<td>ENG 101 English Composition I</td>
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<tr>
<td>ENG 260 Adv. Tech. Communications</td>
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<td>HSS 205 Technology &amp; Society</td>
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<tr>
<td>MAT 168 Geometry &amp; Trigonometry</td>
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<td>MAT 178 Technical Math I</td>
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<td>MAT 179 Technical Math II</td>
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<td>PHY 201 Physics I</td>
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<td>PSY 103 Human Relations</td>
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<thead>
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<th>B. MAJOR COURSES</th>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>CET 105 Surveying I</td>
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<td>3</td>
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<td>EET 111 D C Circuits</td>
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<td>4</td>
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<tr>
<td>EET 112 A C Circuits</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>EGR 101 Introduction to Engineering Tech.</td>
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<td>3</td>
<td>1</td>
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<td>EGR 112 Engineering Programming</td>
<td>2</td>
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<td>EGR 175 Manufacturing Processes</td>
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<td>EGR 194 Statics &amp; Strength</td>
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<td>EGT 102 Technical Drawing</td>
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<td>2</td>
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<tr>
<td>EGT 151 Introduction to CAD</td>
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<td>3</td>
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<tr>
<td>MET 214 Fluid Mechanics</td>
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<table>
<thead>
<tr>
<th>C. ELECTIVES AND OR/OTHER ADDITIONAL COURSES</th>
<th>REQUIRED FOR GRADUATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>88</td>
</tr>
</tbody>
</table>
Engineering Technology

The students must complete two elective courses which total at least 4 credit hours (excluding COL 101).

The student must also take 6 credit hours of technical elective courses that are approved by the Department Head.

ASSOCIATE IN ENGINEERING TECHNOLOGY
MAJOR IN MECHANICAL ENGINEERING TECHNOLOGY

Associate Degree - 21 Months; Day

Mechanical Engineering Technicians help design machinery. They analyze how a machine operates, what size its gears and shafts must be, and what materials to use to make the parts. They work under an engineer's supervision, doing some design work and some drafting. They rely on their knowledge of math and thermal (heat) science and their understanding of the characteristics of metals and other materials to solve design problems.

Mechanical Engineering Technology deals with all aspects of manufacturing as well as the creation and utilization of mechanical power. The ease with which electrical power and mechanical power can be interchanged is an important part of Mechanical Engineering Technology.

Full-time students in this program usually enroll in four or five courses per term which average 24 class hours per week or 17 credit hours per term. Part-time students usually require more terms of attendance to graduate. The exact length depends upon semester offerings and the number of courses taken by the student.

Upon registering, each new student should request a semester course outline which describes the courses and the specific terms in which they are scheduled.

Many courses require a final grade of "C" or better in order to register for more advanced courses. These courses are also noted in the course descriptions.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation are listed on the following page. Upon completion of 83 semester credit hours, the graduate will be awarded an associate's degree in Engineering Technology.

Accreditation: Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Practical Application: Students in Mechanical Engineering Technology perform tests to compare strength and thermal properties of different materials.
Engineering Technology

In addition, Mechanical Engineering Technology students are involved with machining, design, computer-aided drafting and the calibration of instruments.

Job Opportunities: Instrumentation engineering technician, process engineering technician, product designer, heating, air conditioning and ventilation designer, mechanical designer, process control designer, maintenance supervisor, technical sales, tool designer, draftsperson, junior plant engineer, systems engineering technician, testing technician, and manufacturing engineering technician.

### COURSE REQUIREMENTS FOR MECHANICAL ENGINEERING TECHNOLOGY

<table>
<thead>
<tr>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### A. GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HSS 205</td>
<td>Technology &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>IDS 101</td>
<td>Human Thought &amp; Learning</td>
<td>3</td>
</tr>
<tr>
<td>MAT 178</td>
<td>Technical Math I</td>
<td>5</td>
</tr>
<tr>
<td>MAT 179</td>
<td>Technical Math II</td>
<td>5</td>
</tr>
<tr>
<td>PHY 201</td>
<td>Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 202</td>
<td>Physics II</td>
<td>3</td>
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#### B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 101</td>
<td>Intro. to Engr. Tech.</td>
<td>0 3 1</td>
</tr>
<tr>
<td>EGR 112</td>
<td>Engineering Programming</td>
<td>2 3 3</td>
</tr>
<tr>
<td>EGR 170</td>
<td>Engineering Materials</td>
<td>2 3 3</td>
</tr>
<tr>
<td>EGR 175</td>
<td>Manufacturing Processes</td>
<td>3 0 3</td>
</tr>
<tr>
<td>EGR 190</td>
<td>Statics</td>
<td>3 0 3</td>
</tr>
<tr>
<td>EGT 150</td>
<td>Basic CAD</td>
<td>0 6 2</td>
</tr>
<tr>
<td>EGT 157</td>
<td>CAD Techniques</td>
<td>0 6 2</td>
</tr>
<tr>
<td>MET 101</td>
<td>Basic Measuring Princ</td>
<td>0 3 1</td>
</tr>
<tr>
<td>MET 210</td>
<td>Intro to Manufacturing Engineering</td>
<td>2 3 3</td>
</tr>
<tr>
<td>MET 211</td>
<td>Strength of Materials</td>
<td>4 0 4</td>
</tr>
<tr>
<td>MET 212</td>
<td>Kinematics</td>
<td>3 0 3</td>
</tr>
<tr>
<td>MET 213</td>
<td>Dynamics</td>
<td>3 0 3</td>
</tr>
<tr>
<td>MET 214</td>
<td>Fluid Mechanics</td>
<td>3 0 3</td>
</tr>
<tr>
<td>MET 222</td>
<td>Thermodynamics</td>
<td>3 3 4</td>
</tr>
<tr>
<td>MET 224</td>
<td>Hydraulics &amp; Pneumatics</td>
<td>3 0 3</td>
</tr>
<tr>
<td>MET 231</td>
<td>Machine Design</td>
<td>3 3 4</td>
</tr>
<tr>
<td>MET 235</td>
<td>Mfg. Engr. Principles</td>
<td>1 3 2</td>
</tr>
</tbody>
</table>
C. ELECTIVES AND OR/OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION:

The students must complete two elective courses which total at least 4 credit hours (excluding COL 101).

ASSOCIATE IN ENGINEERING TECHNOLOGY
MAJOR IN MECHANICAL ENGINEERING TECHNOLOGY

TECHNICAL SCHOLARS
Associate Degree - 36 Months; Day

The Technical Scholars program selects students meeting specific eligibility requirements for the Mechanical Engineering Technology - Technical Scholars Option. Students attend class and are sponsored by an industry for class-related work experience at the sponsoring industry site for part of each week. See “Technical Scholars” in this catalog for more information.

MECHANICAL COMPUTER AIDED DRAFTING

Certificate - Day ; 16 Months
Evening; 24 Months

In the Mechanical Computer Aided Drafting Certificate program students learn to use a CAD system to solve their graphics problems. The major thrust is in the mechanical field but other areas are also covered. This program can also be used to upgrade experienced drafters and designers. They can receive exemption credit for their experience. Upon completion of this program, a student may continue their education in Engineering Graphics Technology, Mechanical Computer Aided Drafting.

Upon registering, each new student should request a semester course outline which describes the courses and the specific semesters in which they are scheduled.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation are listed on the next page. Upon completion of 39 semester credit hours, the graduate will be awarded a certificate in Mechanical Computer Aided Drafting.
## Engineering Technology

### COURSE REQUIREMENTS FOR

#### MECHANICAL COMPUTER AIDED DRAFTING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>English Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>English Composition II</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAT 102</td>
<td>Intermediate Algebra</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAT 168</td>
<td>Geometry &amp; Trigonometry</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PHS 111</td>
<td>Conceptual Physics I</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>3</td>
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<tr>
<td>PSY 103</td>
<td>Human Relations</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

#### B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 101</td>
<td>Introduction To Engineering Tech.</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>EGT 106</td>
<td>Print Reading &amp; Sketching</td>
<td>3</td>
<td>0</td>
<td>3</td>
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</tr>
<tr>
<td>EGT 110</td>
<td>Engineering Graphics I</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td></td>
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<tr>
<td>EGT 115</td>
<td>Engineering Graphics II</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EGT 151</td>
<td>Introduction To CAD</td>
<td>2</td>
<td>3</td>
<td>3</td>
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</tr>
<tr>
<td>EGT 155</td>
<td>Intermediate CAD</td>
<td>1</td>
<td>3</td>
<td>2</td>
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<tr>
<td>EGT 210</td>
<td>Engineering Graphics III</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
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</table>

#### C. ELECTIVES AND/OR ADDITIONAL COURSES REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 4 credit hours (excluding COL 101).

### QUALITY ASSURANCE

**Certificate-12 Months; Evening**

The three-semester evening program in Quality Assurance is designed for employees who want to advance within a quality department; employees who are considering a department change into a quality department; or employees who want to improve their skills and increase their quality awareness. This program offers the basic mathematic, communication, and blueprint reading skills, as well as quality philosophies, statistical quality control techniques, and quality planning management.
Engineering Technology

Upon registering, each new student should request a semester course outline which describes the courses and the specific terms in which they are scheduled. Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation are listed below. Upon completion of 24 semester credit hours, the graduate will be awarded a certificate in Quality Assurance.

COURSE REQUIREMENTS FOR QUALITY ASSURANCE

<table>
<thead>
<tr>
<th>Credit Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
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</table>

A. GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>English Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MAT 102</td>
<td>Intermediate Algebra</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MAT 120</td>
<td>Probability and Statistics</td>
<td>3</td>
<td>0</td>
<td>3</td>
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</table>

B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT 101</td>
<td>Introduction to Computers</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>EGT 106</td>
<td>Print Reading and Sketching</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>QAT 101</td>
<td>Intro. to Quality Assurance</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>QAT 102</td>
<td>Quality Concepts and Techniques</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>QAT 103</td>
<td>Quality Management</td>
<td>3</td>
<td>0</td>
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</tbody>
</table>

ASSOCIATE IN ENGINEERING TECHNOLOGY

MAJOR IN TEXTILE MANAGEMENT TECHNOLOGY

Associate Degree - 24 Months; Day, Evening

In the Textile Management Technology Associate Degree program, students will obtain the knowledge and skills necessary to become qualified for a first line supervisor’s position in the textile industry. The students will study overall operations of a modern textile plant from raw fiber to finished product. Studies will include time each week at area textile plants, where students will observe operations that correspond to classwork.

Upon registering, each new student should request a semester course outline which describes the courses and specific semesters in which they are scheduled. Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head.
Program requirements are listed below. Upon completion of 67 semester hours, the graduate will be awarded an associate degree in Engineering Technology.

**Job Opportunities:** Carding Supervisor, Spinning Supervisor, Winding Supervisor, Warping Supervisor, Slashing Supervisor, Weaving Supervisor, Inspection Supervisor, Quality Control Supervisor.

### COURSE REQUIREMENTS FOR TEXTILE MANAGEMENT TECHNOLOGY

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. GENERAL EDUCATION COURSES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 101</td>
<td>English Composition I</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>HSS 205</td>
<td>Technology &amp; Society</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>IDS 101</td>
<td>Human Thought &amp; Learning</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>MAT 101</td>
<td>Beginning Algebra</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>SPC 205</td>
<td>Effective Speaking</td>
<td>3</td>
<td>0</td>
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<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>B. MAJOR COURSES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPT 101</td>
<td>Intro. to Computers</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>MAT 120</td>
<td>Prob. &amp; Statistics</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>MGT 205</td>
<td>Labor Relations</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>QAT 232</td>
<td>Statistical Qual. Control</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>TEX 101</td>
<td>Fund. of Textiles</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>TEX 102</td>
<td>Textile Fiber Proc.</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>TEX 111</td>
<td>Textile Proc - Fiber/Spin</td>
<td>1</td>
<td>3</td>
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<tr>
<td>TEX 112</td>
<td>Textile Proc - Weav/Finish</td>
<td>1</td>
<td>3</td>
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<tr>
<td>TEX 115</td>
<td>Management Safety</td>
<td>3</td>
<td>0</td>
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<tr>
<td>TEX 121</td>
<td>Textile Engr.</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>TEX 201</td>
<td>Textile Mfg.</td>
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<td>0</td>
</tr>
<tr>
<td>TEX 202</td>
<td>Textile Tech.</td>
<td>4</td>
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<tr>
<td>TEX 231</td>
<td>Textile Mgmt.</td>
<td>3</td>
<td>0</td>
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<tr>
<td>TEX 233</td>
<td>Textile Supervision</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>TEX 241</td>
<td>Plant Layout and Design</td>
<td>2</td>
<td>3</td>
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</tbody>
</table>
C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION:

The students must complete two elective courses which total at least 4 credit hours (excluding COL 101).
HEALTH SCIENCES TECHNOLOGY

Associate Degree Programs
- Dental Hygiene (1 + 1)
- Medical Laboratory Technology
- Medical Secretarial Science
- Radiologic Technology
- Respiratory Therapy

Diploma Programs
- Dental Assisting
- Early Childhood Development
- Practical Nursing
- Respiratory Therapy Technician
- Surgical Technology

Certificate Programs
- Health Sciences Certificate
- Developmental Disabilities Specialist
- Gerontology Specialist
- Ward Secretary
Program Objective:
To provide a course of study, prior to curriculum program entry, for students who have been accepted into the Health Sciences Technology Division and to provide a certificate program for acquisition of basic entry-level skills for employment as a nursing assistant.

Curriculum:

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG</td>
<td>100</td>
<td>Introduction to Composition</td>
<td>3</td>
</tr>
<tr>
<td>MAT</td>
<td>155</td>
<td>Contemporary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>COL</td>
<td>103</td>
<td>College Skills</td>
<td>3</td>
</tr>
<tr>
<td>PSY</td>
<td>103</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>IDS</td>
<td>101</td>
<td>Human Thought and Learning</td>
<td>3</td>
</tr>
<tr>
<td>CPT</td>
<td>101</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>AHS</td>
<td>101</td>
<td>Introduction to Health Professions</td>
<td>2</td>
</tr>
<tr>
<td>AHS</td>
<td>104</td>
<td>Medical Vocabulary/Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>AHS</td>
<td>105</td>
<td>Medical Ethics and Law</td>
<td>2</td>
</tr>
<tr>
<td>AHS</td>
<td>114</td>
<td>Basic First Aid</td>
<td>1</td>
</tr>
<tr>
<td>AHS</td>
<td>117</td>
<td>Nursing Assistant</td>
<td>4</td>
</tr>
</tbody>
</table>

Total: 30

For additional information on this program, contact:

Phyllis Rogers
(803) 591-3816
or
Cindy Alexander
(803) 591-3875
IMPORTANT NOTICE
TO HEALTH SCIENCE APPLICANTS

Due to an increased demand in the health related fields, several of our Health Sciences Technology programs are filled for Fall 1993. We are not taking applications for any programs that are filled and urge you to call the Admissions Office to check the status of your 1st Choice of Program before applying.

Spartanburg Tech offers 55 technical programs and a university transfer program. If you need assistance in making a curriculum choice, call our Admissions Office to schedule a career planning session.

ADMISSIONS OFFICE:
591-3800
or toll free at
1-800-922-3679

Quality Education for Quality Careers
Spartanburg Technical College does not discriminate on the basis of race, color, religion, age, sex, national origin/ethnic origin or disability in its admissions policies, programs, activities or employment practices.
Health Sciences

APPLICATION PROCEDURE FOR HEALTH SCIENCES TECHNOLOGY

The application procedure for Health Sciences Technology programs includes submitting an application form, $10 application fee, high school and college transcripts, and taking the college's placement test. When all of the above procedures are completed, the college will request an admissions meeting with an admissions counselor. After acceptance, a health form will be requested and must be completed and received by the college prior to registration. A $25 reservation fee is required after acceptance. This fee is applied to the tuition at registration. In addition to the above procedures, some Health Sciences Technology programs require departmental interviews. Prerequisites for admissions to Health Sciences programs are listed below:

Practical Nursing, Radiologic Technology, Respiratory Therapy, Respiratory Care Technician and Medical Laboratory Technology require Biology or Chemistry and one year of Algebra. A minimum grade of "C" is required on all prerequisite courses.

Surgical Technology and Dental Assisting require Biology or Chemistry.

Dental Assisting and Medical Secretarial Science require typing.

Dental Hygiene requires one year of Algebra, Biology and Chemistry.

The Admissions Office considers placement test results, grade averages on high school and college courses, and prerequisite course requirements in determining eligibility for admission.

GENERAL REQUIREMENTS OF THE HEALTH SCIENCES TECHNOLOGY PROGRAMS

All programs require successful completion of the courses listed under each program description. Courses are offered in a prescribed sequence so that all prerequisite requirements can be fulfilled before entering the next term. These prerequisites are specified at the end of each course description at the back of the catalog.

A minimum grade of "C" is required on all major courses to be eligible for graduation. A grade below "C" will not enable a student to enroll in the next curriculum course or courses of which the unsuccessfully completed course is a prerequisite.

Upon entering a Health Sciences Technology program each student will receive a Handbook outlining specific program requirements.
DENTAL ASSISTING

Diploma - 12 Months; Day

The Dental Assistant works closely with the dentist in an interesting variety of capacities including chairside assistant, office manager and laboratory assistant. Chairside assisting involves receiving and preparing the patient for treatment, preparing dental instrument set-ups and assisting the dentist in the treatment of patients. As office manager, the dental assistant is a liaison between the dentist and patient by maintaining patient records, making appointments, and collecting fees.

Exposing and processing x-rays and following proper radiographic safety procedures are among their responsibilities. Other duties include mixing materials for restorations and impressions, infection control, and providing dental health education to patients.

Vital attributes of a Dental Assistant include not only manual dexterity, but a friendly and enthusiastic approach to patients and co-workers.

Full-time day students in this program enroll in two to seven courses per term which average 26 - 36 class hours per week or 9-18 credit hours per term.

Specific questions concerning admission requirements, scheduling of courses or graduation requirements can be answered by the department head. Program requirements for graduation are listed on the following page. Refer to the general introduction of the Health Sciences Technology Division for additional information relevant to all Health Sciences Technology Programs.

Accreditation: Council on Dental Education of the American Dental Association. Graduates of this program are eligible to write the Dental Assisting National Board Examination to become Certified Dental Assistants.

Practical Application: Dental Assisting students work on a daily basis in a simulated dental office. A dentist visits weekly to provide students job-related training. In addition, Dental Assisting students gain clinical experience in local dental offices during the second and third semesters.

Job Opportunities: Chairside Assistant, Receptionist, Orthodontic Assistant, Oral Surgery Assistant, Pediatric Dental Assistant, Endodontist Assistant, and Periodontist Assistant.
## Health Sciences

### COURSE REQUIREMENTS FOR DENTAL ASSISTING

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
</thead>
</table>

### A. GENERAL EDUCATION COURSES

- ENG 165  Professional Communication 3 0 3
- MAT 150  Fundamentals of Mathematics 3 0 3
- PSY 103  Human Relations 3 0 3

### B. MAJOR COURSES

- DAT 112  Integrated Human Science 4 0 4
- DAT 113  Dental Materials 2 6 4
- DAT 115  Ethics and Professionalism 1 0 1
- DAT 118  Dental Morphology 1 3 2
- DAT 121  Dental Health Education 1 3 2
- DAT 122  Dental Office Management 1 3 2
- DAT 123  Oral Medicine/Oral Biology 3 0 3
- DAT 124  Expanded Functions/Specialties 0 3 1
- DAT 127  Dental Radiography 2 6 4
- DAT 154  Clinical Procedures I 2 6 4
- DAT 174  Office Rotation 0 12 4
- DAT 177  Dental Office Experience 1 32 7

### C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

No electives required for this program.
Health Sciences

Dental Hygiene
1 + 1
Phase I - 9 months; Day, Evening

The dental hygienist is a preventive health care professional, a member of the dental health care team. A dental hygienist is trained to provide preventive services in a variety of settings: hospitals, school systems, specialized institutions, public health and in the private dental office. His/her major role is as an educator since the dental hygienist is responsible for individualized patient education plans. Other duties include patient scheduling, exposing and processing x-rays, scaling, polishing and fluoride treatments.

The concept of the 1+1 program design is simply a shared venture of schools to offer a specialized curriculum. The first phase of the program is offered at Spartanburg Technical College and clusters all of the general education and related course work required for the program. Students may complete the first phase as a full-time or part-time student, designing their schedule according to their needs and personal situation. There is a five (5) year time limit for this portion, so it is imperative that required courses are completed in a timely fashion. Upon successful completion of the first phase, students are eligible for the second phase.

The second phase of the program clusters all of the dental hygiene course work and must be taken at Greenville Technical College. This is a difficult and intensely structured course of study. This portion of the program is offered in daytime only and is full-time lasting four semesters (approximately 60 weeks or 15 months).

Graduates from the program will receive an Associate in Health Science - Dental Hygiene degree from Greenville Technical College and will be eligible to sit for the National Board Exam and state licensure exams.

If you plan to complete Phase I at Spartanburg Technical College, you must apply to and be accepted by Spartanburg Technical College. **THE DESIGN OF YOUR PROGRAM SCHEDULE, TERM BY TERM REGISTRATION, COURSE SELECTION AND TIMELINE IS TOTALLY COORDINATED BY THE ADVISOR AT SPARTANBURG TECH.** The completion of Phase I must be concluded in a timely manner (no more than five years). Any "BIO" prefix course must be taken within three (3) calendar years of the planned transfer to Greenville Technical College for Phase II, except BIO 218 which must be taken within two (2) calendar years of progression to Phase II.

After a student is accepted, he/she will be assigned to a program advisor. Progression through the program must be coordinated by the advisor.

Students must maintain a minimum cumulative GPA of 2.0 with no less than a "C" in each course. If your cumulative GPA falls below 2.0 or you make less than a "C" in a required Phase I course, you will be required to repeat the course and earn a "C" or above before you will be eligible for Phase II.
**Health Sciences**

Course Requirements for Dental Hygiene

**Phase I**

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Class Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 210</td>
<td>Anatomy and Physiology I</td>
</tr>
<tr>
<td>BIO 211</td>
<td>Anatomy and Physiology II</td>
</tr>
<tr>
<td>BIO 218</td>
<td>Head and Neck Anatomy</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Microbiology</td>
</tr>
<tr>
<td>CHM 105</td>
<td>General, Org. and Biochemistry</td>
</tr>
<tr>
<td>MAT 155</td>
<td>Contemporary Mathematics</td>
</tr>
<tr>
<td>SPC 205</td>
<td>Public Speaking</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Composition I</td>
</tr>
<tr>
<td>PSY 201</td>
<td>General Psychology</td>
</tr>
<tr>
<td>SOC 201</td>
<td>Introduction to Sociology</td>
</tr>
</tbody>
</table>

**B. MAJOR COURSES**

All major courses must be taken at Greenville Technical College.

**C. ELECTIVES AND/OR ADDITIONAL COURSES REQUIRED**

*Humanities Elective
*Free Elective

*Electives can be taken during Phase I or Phase II of the program. The elective is any college transfer course equivalent to 4.5 quarter credit hours or 3.0 semester credit hours.

**DEVELOPMENTAL DISABILITIES SPECIALIST**

*Certificate - 6 Months; Day, Evening*

The need for trained qualified personnel to provide care for persons with developmental disabilities is increasing as the demands placed on caregivers and the medical communities increase. The Developmental Disabilities Specialist is concerned with the social, emotional, physical and mental development of the handicapped and disabled. Specific skills and abilities are necessary to provide meaningful and
appropriate care for these individuals. This certificate program provides classroom instruction and practical experience.

Full-time students in this program enroll in five to six courses which average 29 class hours per week or 16 credit hours. Night schedules will vary.

Specific questions concerning admission requirements, scheduling of courses or graduation requirements can be answered by the Health Sciences Certificate department head or the division dean. Program requirements for graduation are listed below. Refer to the general introduction of the Health Sciences Technology Division for additional information relevant to all Health Sciences Technology Programs.

Practical Applications: The Health Sciences Technology Division is affiliated with numerous agencies which will provide guided practical experience for students during the course of the program.

Job Opportunities: Teacher's Aide in school systems, special education facilities or child development centers, hospitals, clinics, physicians' offices, social service agencies, residential facilities for the handicapped, etc.

**COURSE REQUIREMENTS FOR DEVELOPMENTAL DISABILITIES SPECIALIST**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
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<td>AHS 117</td>
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<td>3</td>
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<td>3</td>
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<tr>
<td>HUS 150</td>
<td></td>
<td>0</td>
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<td>HUS 216</td>
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<td>HUS 260</td>
<td></td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

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Health Sciences

C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

None

EARLY CHILDHOOD DEVELOPMENT

Diploma - 12 months; Day, Night
Certificate - 9 months - Day
16 months - Night

The Early Childhood Development Program is concerned with the social, emotional, physical, and mental development of the young child. An Early Childhood Development student requires specific skills and abilities for creating and developing various activities for the education of children both in and out of the classroom.

Full-time day students in this program enroll in four to six courses per term which average 20-25 class hours per term or 12.0 - 18.0 credit hours per semester. Night schedules will vary.

Specific questions concerning admission requirements, scheduling of courses or graduation requirements can be answered by the department head. Program requirements for graduation are listed. Refer to the general introduction of the Health Sciences Technology Division for additional information relevant to all Health Sciences Programs.

Practical Application: The Early Childhood Development Program is affiliated with numerous child development centers, private and public kindergartens and special centers for the handicapped. Students gain experience on a weekly basis at these sites.

Job Opportunities: Teacher's Aide in school systems, special education facilities, or child development centers, associate teacher in child development facilities, teacher in child development facilities or Head Start.

COURSE REQUIREMENTS FOR DIPLOMA
EARLY CHILDHOOD DEVELOPMENT

<table>
<thead>
<tr>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A. GENERAL EDUCATION COURSES

| ENG 100 | Introduction to Composition | 3 | 0 | 3 |
| MAT 150 | Fundamentals of Mathematics  | 3 | 0 | 3 |
| PSY 201 | General Psychology           | 3 | 0 | 3 |
Health Sciences

B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
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<td>Introduction to Early Childhood</td>
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<tr>
<td>ECD 102</td>
<td>Growth and Development I</td>
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<td>0</td>
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<td>ECD 103</td>
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<td>ECD 105</td>
<td>Guidance-Classroom Management</td>
<td>3</td>
<td>0</td>
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<td>ECD 107</td>
<td>Exceptional Children</td>
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<td>ECD 131</td>
<td>Language Arts</td>
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<tr>
<td>ECD 132</td>
<td>Creative Experiences</td>
<td>1</td>
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<td>3</td>
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<tr>
<td>ECD 133</td>
<td>Science and Math Concepts</td>
<td>3</td>
<td>0</td>
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<tr>
<td>ECD 135</td>
<td>Health, Safety and Nutrition</td>
<td>2</td>
<td>3</td>
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<tr>
<td>ECD 137</td>
<td>Methods and Materials</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>ECD 143</td>
<td>Supervised Field Experience I</td>
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<td>9</td>
<td>3</td>
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<tr>
<td>ECD 144</td>
<td>Supervised Field Experience II</td>
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</table>

C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

No electives required for this program.

GERONTOLOGY SPECIALIST

Certificate - 6 Months; Day, Evening

With the increase in the elderly population and the demands placed on caregivers and the medical communities, there is an ever widening gap in providing care for the elderly. The Gerontology Specialist is concerned with the social, emotional, physical and mental conditions of the elderly. The specific skills and abilities as needed to provide meaningful and appropriate care for the elderly will be taught in the classroom with actual experience provided at practicum sites.

Full-time students in this program enroll in five to six courses which average 29 class hours per week or 16 credit hours. Night schedules will vary.

Specific questions concerning admission requirements, scheduling of courses or graduation requirements can be answered by the Health Sciences Certificate department head or the division dean. Program requirements for graduation follow. Refer to the general introduction of the Health Sciences Technology Division for additional information relevant to all Health Sciences Technology Programs.
Health Sciences

Practical Applications: The Health Sciences Technology Division is affiliated with numerous agencies which will provide guided practical experience for students during the course of the program.

Job Opportunities: Adult Day Care Centers, hospitals, clinics, physicians' offices, social service agencies, residential facilities for the elderly, etc.

COURSE REQUIREMENTS FOR GERONTOLOGY SPECIALIST

<table>
<thead>
<tr>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
</table>

A. GENERAL EDUCATION COURSES

None

B. REQUIRED COURSES

| AHS 117 | Nurse Assisting | 3 | 3 | 4 |
| AHS 114 | Basic First Aid | 1 | 0 | 1 |
| HUS 101 | Introduction to Human Services | 3 | 0 | 3 |
| HUS 150 | Supervised Field Placement | 0 | 12 | 3 |
| HUS 205 | Gerontology | 3 | 0 | 3 |
| HUS 260 | Human Services Special Topics | 2 | 3 | 3 |

C. ELECTIVES AND/OR ADDITIONAL COURSES REQUIRED FOR GRADUATION

None

HEALTH SCIENCES

Certificate - 9 months; Day

The Health Sciences Certificate Program will provide entry-level skills for those seeking employment in the health field as a nurse aide after passing the nurse aide certification examination. This program will also allow students who have been accepted into a curriculum to enroll in courses, some of which will transfer into their curriculum. The Health Sciences Certificate Program will allow the students who "want to do something in the health field" but are not sure what, to explore options while taking courses that may transfer into their final choice.
In order to graduate, full-time students in this program usually enroll in 5 or 6 courses per semester and complete the program in two semesters. Part-time students require more semesters of attendance to graduate. The exact length depends upon the semester offerings and the number of courses taken by the student.

Practical Application: Time is spent in affiliating hospitals, nursing homes and in classroom situations to enhance communication and problem-solving skills.

Job Opportunities: Hospitals, Nursing Homes, Clinics, Home Health Agencies.

COURSE REQUIREMENTS FOR HEALTH SCIENCES

<table>
<thead>
<tr>
<th>A. GENERAL EDUCATION</th>
<th>Class</th>
<th>Lab</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 100 Introduction to Composition</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MAT 155 Contemporary Mathematics</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>COL 103 College Skills</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PSY 103 Human Relations</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>IDS 101 Human Thought and Learning</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CPT 101 Introduction to Computers</td>
<td>3</td>
<td>0</td>
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<table>
<thead>
<tr>
<th>B. MAJOR COURSES</th>
<th>Class</th>
<th>Lab</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS 101 Intro. to Health Professions</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AHS 104 Medical Vocabulary/Anatomy</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>AHS 105 Medical Ethics and Law</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AHS 114 Basic First Aid</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>AHS 117 Nurse Assisting</td>
<td>3</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>C. ELECTIVES AND/OR ADDITIONAL COURSES REQUIRED FOR GRADUATION</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
The Medical Laboratory Technician, working under the supervision of a medical technologist, performs tests ranging from simple pre-marital blood tests to more complex procedures for detecting such diseases as diabetes, anemia, leukemia, and cancer. Specimens such as blood, urine, spinal fluid, other body fluids, and tissues are examined by the medical laboratory technician to provide the physician with accurate test results. These results are used by the physician to diagnose, treat, and subsequently monitor patient progress. As medical investigators Medical Laboratory Technicians perform venipunctures, operate complex electronic equipment, computers, and examine specimens under a microscope. Medical laboratory technicians spend less time with patients than do other allied health professionals, but are important members of the health care team providing vital information which can influence the treatment of patients.

Full-time students in this program enroll in four to five courses per term which average 23 - 39 class/lab hours per week or 13.0 - 17.0 credit hours per term.

Specific questions concerning admission requirements, scheduling of courses or graduation requirements can be answered by the department head. Program requirements for graduation are listed on the following page. Refer to the general introduction of the Health Sciences Technology Division for additional information relevant to all Health Sciences Technology Programs.

Accreditation: The Committee on Allied Health Education and Accreditation of the American Medical Association. Graduates are eligible to sit for the National Registry Examination.

Practical Application: The MLT program is affiliated with five area hospitals. During the second year of the program, medical laboratory students gain nine months clinical experience at one or more of these hospitals.

Job Opportunities: Hospital laboratories, private laboratories, industrial laboratories, doctors' offices, and veterinary clinics.
### Health Sciences

#### COURSE REQUIREMENTS FOR MEDICAL LABORATORY TECHNOLOGY

<table>
<thead>
<tr>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
</table>

#### A. GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 201</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>ENG 101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 155</td>
<td>Contemporary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>SPC 205</td>
<td>Public Speaking</td>
<td>3</td>
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#### B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MLT 102</td>
<td>Medical Lab Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>MLT 105</td>
<td>Medical Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>MLT 108</td>
<td>Urinalysis/Body Fluids</td>
<td>2</td>
</tr>
<tr>
<td>MLT 110</td>
<td>Hematology</td>
<td>3</td>
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<tr>
<td>MLT 120</td>
<td>Immunohematology</td>
<td>3</td>
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<tr>
<td>MLT 130</td>
<td>Clinical Chemistry</td>
<td>3</td>
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<tr>
<td>MLT 205</td>
<td>Advanced Microbiology</td>
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<td>MLT 241</td>
<td>Medical Lab Transition</td>
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<td>MLT 210</td>
<td>Advanced Hematology</td>
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<td>MLT 230</td>
<td>Advanced Clinical Chemistry</td>
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<td>MLT 240</td>
<td>Integrated Lab Concepts</td>
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<tr>
<td>MLT 251</td>
<td>Clinical Experience I</td>
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<td>MLT 252</td>
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<tr>
<td>MLT 254</td>
<td>Clinical Experience IV</td>
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</table>

#### C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 4.0 credit hours (excluding COL 101). (3.0 credit hours must be completed in General Education)
The skills learned in Medical Secretarial Science are increasingly regarded as an essential requirement for the effective management and efficient operation of the medical office, medical records department or other related health care facilities. A strong background in medical terminology, typing and transcription allows the graduate to become a medical transcriptionist. Accurate and timely transcribing of the doctor's dictation is integral to the smooth operation of hospitals and physicians offices.

In addition, the Medical Secretary's office procedures skills allows him/her to perform in other capacities such as processing medical insurance claims, coding, billing and general office management. In the role of office receptionist, good interpersonal skills are vital to greeting patients and serving their needs.

Full-time students in this program enroll in three to five courses per term which average 16 class hours per week or 15.0 credit hours per term.

Specific questions concerning admission requirements, scheduling of courses or graduation requirements can be answered by the department head. Program requirements for graduation are listed below. Refer to the general introduction of the Health Sciences Technology Division for additional information relevant to all Health Sciences Technology Programs.

**Practical Application:** Practical experience in local doctors' offices and health care facilities is gained during the last semester.

**Job Opportunities:** Medical record department, other hospital departments, medical offices, clinics, and other health care facilities.

### COURSE REQUIREMENTS FOR MEDICAL SECRETARIAL SCIENCE

<table>
<thead>
<tr>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>English Composition I</td>
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<tr>
<td>ENG 102</td>
<td>English Composition II</td>
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<tr>
<td>MAT 160</td>
<td>Math for Business and Finance</td>
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</tr>
<tr>
<td>SPC 205</td>
<td>Public Speaking</td>
<td>3</td>
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</table>
Health Sciences

B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Class</th>
<th>Lab</th>
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<tbody>
<tr>
<td>AHS 105</td>
<td>Medical Ethics and Law</td>
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<td>AHS 122</td>
<td>Anatomy Based Med. Term. I</td>
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<td>AHS 123</td>
<td>Anatomy Based Med. Term. II</td>
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<td>AHS 118</td>
<td>Medical Coding &amp; Insurance</td>
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<tr>
<td>MED 122</td>
<td>Medical Assist. Lab Procedure I</td>
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<td>0</td>
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<td>MED 156</td>
<td>Clinical Experience I</td>
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<td>OST 112</td>
<td>Medical Document Formatting</td>
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<td>OST 122</td>
<td>Med. Machine Transcription I</td>
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<td>OST 143</td>
<td>Office Systems and Procedures</td>
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<td>OST 165</td>
<td>Information Processing Software</td>
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<td>OST 212</td>
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<td>3</td>
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<td>OST 222</td>
<td>Med. Machine Transcription II</td>
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<tr>
<td>OST 223</td>
<td>Medical Machine Trans. III</td>
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<tr>
<td>OST 252</td>
<td>Med. Systems and Procedures</td>
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<td>0</td>
<td>3</td>
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</tbody>
</table>

C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 4.0 credit hours (excluding COL 101).

PRACTICAL NURSING

Diploma - 12 Months; Day

A graduate of the Practical Nursing Program administers nursing care to the convalescing and chronically ill patient and assists the Registered Nurse in providing quality care for the more acutely ill or injured patient. Because of the nature of the career, a strong desire to serve other people is essential. Sound interpersonal skills as well as technical skills are required of a graduate Practical Nurse.
Health Sciences

Full-time students in this program enroll in four to five courses per term which average 20-27 class hours per week for a total of 12.0 - 19.0 credit hours per term.

Specific questions concerning admission requirements, scheduling of courses or graduation requirements can be answered by the department head. Program requirements for graduation are listed. Refer to the general introduction of the Health Sciences Technology Division for additional information relevant to all Health Sciences Technology Programs.

Accreditation: The Practical Nursing Program is accredited by the State Board of Nursing. Graduates of the program are eligible to write the State Board of Nursing Examination for state licensure.

Practical Application: During the year, time is spent in affiliated hospitals, doctors' offices, and surrounding clinics as applicable to the program and associated lectures.

Job Opportunities: Hospitals, doctors' offices, nursing homes, clinics and private homes.

COURSE REQUIREMENTS FOR
PRACTICAL NURSING

<table>
<thead>
<tr>
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<th>Lab</th>
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Health Sciences

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C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

No electives required for this program.

RADIOLOGIC TECHNOLOGY

Associate Degree - 24 months; Day

The Radiologic Technologist or Radiographer is a skilled health professional with a dual responsibility: care of the patient and the production of technically diagnostic radiographs. The technologist assists the Radiologist (M.D.) by performing examinations of the body to rule out or confirm diseases, fractures, and other injuries. These duties may be performed not only in the Radiology Department but also in the emergency room, operating room or at the bedside.

The field of Radiology is rapidly expanding to incorporate new technologies offering additional career opportunities to the trained radiologic technologist.

Full-time students in this program enroll in three to five courses per semester which average 34 - 38 class hours per week or 10 - 19 credit hours per semester. Each new class begins only in July of each year.

Specific questions concerning admission requirements, scheduling of courses or graduation requirements can be answered by the department head. Program requirements for graduation are listed on the following page. Refer to the general introduction of the Health Sciences Technology Division for additional information relevant to all Health Sciences Technology Programs.

Accreditation: The Radiologic Technology program in radiography is accredited by the Committee on Allied Health Education and Accreditation (CAHEA) in cooperation with the Joint Review Committee on Education in Radiologic Technology (JRCERT), and graduates are eligible to apply for
admission to the certification exam administered by the American Registry of Radiologic Technologists (ARRT). A passing grade on this exam entitles the graduate to use the abbreviations R.T.(R), A.R.T., (registered technologist) following his/her name.

Practical Application: The curriculum provides classroom instruction in anatomy and physiology, exposure techniques, positioning, patient care, radiation protection and physics at the college. Topics in nuclear medicine, radiation therapy, ultrasound, computerized tomography, magnetic resonance imaging, and special procedures are included. To complete the comprehensive education plan, clinical experience is obtained in major hospitals in the area.

Job Opportunities: Career opportunities exist primarily in hospitals, clinics, and specialized doctors' offices. The curriculum can also be used as a stepping stone for careers in related Allied Health professions such as ultrasound, nuclear medicine, radiation therapy, computerized tomography, special procedures, magnetic resonance imaging, teaching and management, and technical sales representation of various x-ray products.

### COURSE REQUIREMENTS FOR RADIOLOGIC TECHNOLOGY

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<thead>
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<th>Course</th>
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# Health Sciences

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## C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 4.0 credit hours (excluding COL 101).

(3.0 credit hours must be completed in Social Sciences)

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## RESPIRATORY CARE PROGRAMS

**Diploma - 16 Months; Day**
**Associate Degree - Additional 8 Months; Day**

Among the first medical specialists called in emergency treatment of acute respiratory conditions are the Respiratory Care Practitioners. The Respiratory Therapist assesses the patient's need for respiratory care, administers the therapy, evaluates the patient's response and modifies the care to provide the maximum benefit to patients. The therapist is a resource to the physician and may function unsupervised. In addition, the therapist supervises, directs and teaches less skilled personnel. Therefore, great individual judgement is required. The technician assists the therapist and provides patient care in non-critical situations. The technician may perform some more advanced tasks under the direct supervision of a physician or therapist. Increasing numbers of cardio-respiratory problems, chronic asthma and emphysema victims mean an increasing need for graduates of the Respiratory Care Programs. The Respiratory Care Programs are comprised of the sixteen-
month technician program and the eight-month therapist program. Graduates of the one year program may opt to continue into the second year to complete the therapist program or may seek employment at the end of the first year as a technician.

Full-time students in this program enroll in four to five courses per term which average 15-30 class hours per week or 9-19.0 credit hours per term.

Specific questions concerning admission requirements, scheduling of courses or graduation requirements can be answered by the department head. Program requirements for graduation are listed. Refer to the general introduction of the Health Sciences Technology Division for additional information relevant to all Health Sciences Technology Programs.

Accreditation: The Respiratory Care Programs are accredited by the Joint Review Committee for Respiratory Therapy Education which is sponsored by the American Association for Respiratory Care, American College of Chest Physicians, American Society of Anesthesiologists, and American Thoracic Society. These are in collaboration with the Committee on Allied Health Education and Accreditation of the American Medical Association. Sixteen-month graduates receive a diploma and are eligible to write the national certification examination. The two year graduate receives an Associate Degree in Health Science and is eligible to write the national registry examination. Both may apply for South Carolina State Licensure.

Practical Application: Clinical rotations occur during Spring, Summer and final Fall semester of the Technician program and all terms of the Therapist Program. Students are scheduled at four area hospitals where practical experience is gained.

Job Opportunities: Job opportunities are found in hospitals, home care programs, nursing homes and doctors' offices.

COURSE REQUIREMENTS FOR RESPIRATORY CARE PROGRAMS

RESPIRATORY CARE TECHNICIAN

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<td>MAT 155  Contemporary Mathematics</td>
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### Health Sciences

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#### B. MAJOR COURSES

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<td>Drug Classifications I</td>
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<td></td>
<td>RES 101</td>
<td>Introduction to Respiratory Care</td>
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<td>RES 111</td>
<td>Pathophysiology</td>
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<td>RES 121</td>
<td>Respiratory Skills I</td>
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<td></td>
<td>RES 142</td>
<td>Basic Pediatric Care</td>
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<td></td>
<td>RES 151</td>
<td>Clinical Application I</td>
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<td>RES 232</td>
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#### C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

No electives required for this program.

## RESPIRATORY THERAPIST

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### B. MAJOR COURSES

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### Health Sciences

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### C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 4.0 credit hours (excluding COL 101).

(3.0 credit hours must be completed in Humanities/Fine Arts)

### SURGICAL TECHNOLOGY

**Diploma - 12 Months; Day**

Surgical Technology is an exciting profession where the work environment is both intense and dynamic. The Surgical Technologist is an integral part of the surgical team. They must have a thorough knowledge of surgical instruments since part of their responsibility is to assemble the needed instruments and supplies for various types of surgery. To facilitate the smooth progress of surgery, the Surgical Technologist anticipates the needs of surgeons by passing instruments in an efficient manner. Passing instruments is a precise skill requiring both manual dexterity and concentration abilities.

A vital role of the technologist is to maintain aseptic technique and sterile conditions prior to and during surgery to minimize the risk of infection to the patient. The Surgical Technologist may also assume some patient care responsibilities.
Full-time students in this program enroll in three to five courses per term which average 27 - 36 class hours per week or 12.0 - 19.0 credit hours per term.

Specific questions concerning admission requirements, scheduling of courses or graduation requirements can be answered by the department head. Program requirements for graduation are listed. Refer to the general introduction of the Health Sciences Technology Division for additional information relevant to all Health Sciences Technology Programs.

Accreditation: This program is accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association. Graduates are eligible to take the National Certification Examination.

Practical Application: During the last six months of the program, thirty hours per week are spent in affiliated hospitals rotating through the operating room, labor and delivery suite, endoscopy unit, outpatient surgery suite, emergency room, and sterile processing department.

Job Opportunities: Operating rooms, labor and delivery suites, sterile processing departments, doctors offices and veterinary hospitals.

### COURSE REQUIREMENTS FOR SURGICAL TECHNOLOGY

<table>
<thead>
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<th>Credit</th>
<th>Class</th>
<th>Lab</th>
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Health Sciences

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C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

No electives required for this program.

WARD SECRETARY

Certificate - 9 months; Day

The Ward Secretary performs clerical duties on nursing units in hospitals, in other hospital departments and doctors' offices. Interpersonal skills are vital in his/her role as a communicator to nursing staff, physicians, other hospital staff, and patients and their families. These skills also include the special area of relating to ill and anxious people. The Ward Secretary has a strong knowledge of medical terminology, medical procedures and diagnostic tests. This knowledge is used to requisition general hospital or medical services from the appropriate department as they are ordered by the physician.

Full-time students in this program enroll in five courses per term which average 26.5 class hours per week or 175 credit hours per term.

Specific questions concerning admission requirements, scheduling of courses or graduation requirements can be answered by the department head. Program requirements for graduation are follow. Refer to the general introduction of the Health Sciences Technology Division for additional information relevant to all Health Sciences Technology Programs.

Accreditation: Graduates are eligible to sit for the National Certification Exam for Health Unit Coordinators.
Health Sciences

Practical Applications: During the last term of the Ward Secretary Program, students gain practical experience in affiliated hospitals, clinics, and doctors' offices.

Job Opportunities: Unit secretaries, clerks in other hospital areas, receptionists in doctors' offices, or other medical settings.

### COURSE REQUIREMENTS FOR WARD SECRETARY

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td><strong>A. GENERAL EDUCATION COURSES</strong></td>
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<tr>
<td>CPT 107</td>
<td>File Entry Operations</td>
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<tr>
<td>ENG 100</td>
<td>Introduction to Composition</td>
<td>3</td>
<td>0</td>
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<td>IDS 101</td>
<td>Human Thought and Learning</td>
<td>3</td>
<td>0</td>
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<td><strong>B. MAJOR COURSES</strong></td>
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<tr>
<td>AHS 105</td>
<td>Medical Ethics and Law</td>
<td>2</td>
<td>0</td>
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<td>AHS 122</td>
<td>Anatomy Based Med. Term. I</td>
<td>5</td>
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<td>AHS 123</td>
<td>Anatomy Based Med. Term. II</td>
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<td>HUC 101</td>
<td>Health Unit Procedures I</td>
<td>3</td>
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<td>HUC 102</td>
<td>Health Unit Procedures II</td>
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<td>HUC 151</td>
<td>Clinical Procedures I</td>
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<tr>
<td>HUC 152</td>
<td>Clinical Procedures II</td>
<td>0</td>
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<td><strong>C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION</strong></td>
<td></td>
<td></td>
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</tbody>
</table>

No electives required for this program.
INDUSTRIAL TECHNOLOGY

Associate Degree Programs
Automotive Technology
  *Ford ASSET Option*
General Technology
Heating, Ventilation, and Air Conditioning Technology
Industrial Electronics Technology
Industrial Electronics Technology
  *Automated Manufacturing Technology Option*
Automated Manufacturing Technology
  *Technical Scholars Option*
Machine Tool Technology
Nuclear Service Technology

Diploma Programs
Industrial Mechanics
Welding

Certificate Programs
Air Conditioning and Refrigeration
Basic Automotive Mechanics
Basic Electronics
Advanced Automotive Mechanics I
Advanced Automotive Mechanics II
Computer Numerical Control Operator
Welding
AIR CONDITIONING AND REFRIGERATION

Certificate (Day and Evening)

The Air Conditioning and Refrigeration certificate program will train students to have a basic knowledge of heating, cooling and refrigeration. The graduates of the certificate program may choose the residential field to work on houses and small buildings. The program is designed for 12 months, but it is possible to graduate in less time.

In order to graduate, full-time students enrolled in this program usually enroll in three or four courses per term which include 20-25 class hours per week or average 14 credit hours per semester. Part-time students usually require more terms of attendance to graduate. The exact length of the program depends upon semester offerings and the number of courses taken by the student.

Upon registering, each new student should request a program outline.

Many of the courses listed require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation are listed below.

Job Opportunities: Install and service air conditioning and refrigeration in the residential field.

COURSE REQUIREMENTS FOR AIR CONDITIONING AND REFRIGERATION

<table>
<thead>
<tr>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. GENERAL EDUCATION COURSES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>B. MAJOR COURSES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACR 101 Fundamentals of Refrigeration</td>
<td>3</td>
<td>6</td>
<td>5</td>
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<tr>
<td>ACR 106 Basic Electricity HVAC</td>
<td>3</td>
<td>3</td>
<td>4</td>
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<tr>
<td>ACR 110 Heating Fundamentals</td>
<td>3</td>
<td>3</td>
<td>4</td>
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<tr>
<td>ACR 120 Basic Air Conditioning</td>
<td>3</td>
<td>3</td>
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### Industrial

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ACR 122</td>
<td>Principles of Air Conditioning</td>
<td>4</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>ACR 130</td>
<td>Domestic Refrigeration</td>
<td>3</td>
<td>3</td>
<td>4</td>
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<td>ACR 140</td>
<td>Automatic Controls</td>
<td>2</td>
<td>3</td>
<td>3</td>
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<tr>
<td>ACR 210</td>
<td>Heat Pumps</td>
<td>3</td>
<td>3</td>
<td>4</td>
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<tr>
<td>ACR 224</td>
<td>Codes &amp; Ordinances</td>
<td>1</td>
<td>3</td>
<td>2</td>
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<tr>
<td>WLD 102</td>
<td>Introduction to Welding</td>
<td>2</td>
<td>0</td>
<td>2</td>
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</tbody>
</table>

**C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION**

None

### BASIC AUTOMOTIVE MECHANICS

**Certificate (Day and Evening)**

This certificate program provides a person with a sound foundation in the basics of Automotive Mechanics. Quality workmanship and safety will be emphasized. This program will allow persons to become gainfully employed, satisfy personal goals and/or continue automotive training at more advanced levels.

In order to graduate, full-time students enrolled in this program usually enroll in four courses per term which average 22 class hours per week or average 14 credit hours per term. Part-time students usually require more terms of attendance to graduate. The exact length depends upon course offerings and the number of courses taken by the student.

Upon registering, each new student should request a program outline which describes the courses and the terms in which they are scheduled.

Many of the courses listed on the following page require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation follow.
Industrial

Practical Application: Students in Automotive Mechanics receive experience in all types of automotive repair. Students build engines, test and repair fuel systems, electrical systems, brake systems, front end alignment and wheel balancing.

Job Opportunities: General automotive mechanic, service station attendant, parts counterperson, brakes repairperson, engine tune-up person, alignment and wheel balancing person, automotive specialist assistant.

COURSE REQUIREMENTS FOR BASIC AUTOMOTIVE MECHANICS

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 160</td>
<td>Technical Communications</td>
<td>3</td>
</tr>
<tr>
<td>MAT 155</td>
<td>Contemporary Mathematics</td>
<td>3</td>
</tr>
</tbody>
</table>

B. MAJOR COURSES

| AUT 101  | Engine Fundamentals | 3 | 0 | 3 |
| AUT 104  | Engine Rebuild      | 2 | 9 | 5 |
| AUT 112  | Braking Systems     | 2 | 6 | 4 |
| AUT 122  | Suspension and Alignment | 3 | 3 | 4 |
| AUT 131  | Electrical Systems  | 3 | 0 | 3 |
| AUT 132  | Automotive Electricity | 3 | 3 | 4 |
| AUT 145  | Engine Performance  | 2 | 3 | 3 |
| AUT 146  | Emission Systems    | 3 | 0 | 3 |
| AUT 147  | Fuel Systems        | 3 | 3 | 4 |

C. ELECTIVES

None

ADVANCED AUTOMOTIVE MECHANICS I

Certificate (Evening)

This certificate program provides students with more advanced study, skill development and experiences in automotive HVAC and electrical systems.
Previous auto mechanic training or experience is needed to insure success in this program.

In order to graduate, full-time students enrolled in this program usually enroll in three courses per term which average 19 class hours per week or average 11 credit hours per term. Part-time students usually require more terms of attendance to graduate. The exact length depends upon semester offerings and the number of courses taken by the student.

Upon registering, each new student should request a program outline which describes the courses and the term in which they are scheduled.

Many of the courses listed below may require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation follow.

Practical Application: Students receive experience on more advanced electrical systems and computer systems. In addition, they will learn to test and repair heating ventilation and air conditioning systems.

Job Opportunities: General automotive mechanic, electrical systems technician, automotive HVAC technician.

COURSE REQUIREMENTS FOR ADVANCED AUTOMOTIVE MECHANICS I

<table>
<thead>
<tr>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
</tr>
<tr>
<td>Lab</td>
</tr>
<tr>
<td>Hours</td>
</tr>
</tbody>
</table>

A. GENERAL EDUCATION COURSES

None

B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 115</td>
<td>Manual Drive Train/Axle</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AUT 141</td>
<td>Introduction to Heating &amp; Air Cond.</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AUT 231</td>
<td>Automotive Electronics</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
C. ELECTIVES

None

ADVANCED AUTOMOTIVE MECHANICS II

Certificate (Evening)

This certificate program provides theory, skills and practice in the areas of automatic transmissions, transaxles and drive systems. Previous auto mechanic experience is needed for success in this program.

In order to graduate, full-time students enrolled in this program usually enroll in two courses per term which average 19 class hours per week or average 9 credit hours per term. Part-time students usually require more terms of attendance to graduate. The exact length depends upon semester offerings and the number of courses taken by the student.

Upon registering, each new student should request a program outline which describes the courses and the term in which they are scheduled.

The courses listed may require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation follow.

Practical Application: Students receive experience in many types of automatic and manual transmissions, transaxles, clutches and other power train units. Diagnosis, disassembly, repair and assembly of these units are taught and practiced.

Job Opportunities: General automotive mechanics, power train technician, automatic transmission specialist.

ADVANCED AUTOMOTIVE MECHANICS II

A. GENERAL EDUCATION COURSES

None
B. **MAJOR COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 152</td>
<td>Automatic Transmission</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>AUT 251</td>
<td>Automatic Transmission Overhaul</td>
<td>2</td>
<td>9</td>
<td>5</td>
</tr>
</tbody>
</table>

C. **ELECTIVES**

None

**FORD ASSET**
(Automotive Student Service Educational Training)

Associate Degree - 24 Months; Day

ASSET is a two-year college program leading to an Industrial Technology Associate Degree with a major in Automotive Technology. It is a joint effort between Ford Motor Company, Spartanburg Technical College and sponsoring Ford and Lincoln-Mercury dealers.

Ford ASSET Program students will learn how to analytically diagnose, service and maintain Ford and Lincoln-Mercury automotive products/components using recommended procedures, special tools, and Ford service manuals.

This program is divided into two parts: classroom/lab instruction and full-time work experience. There are approximately 8 weeks of classroom instruction at Spartanburg Technical College, alternated with another 8 weeks of full-time work experience at a Ford or Lincoln-Mercury dealership.

Technical training on Ford automotive products will cover the latest developments of Ford technology including engines, fuel management, electronics, transmission/transaxles, brake systems, and air conditioning. In addition, courses in mathematics, physical science, and English will provide the well-rounded academic background necessary to communicate and reason effectively.

This system allows the student to apply, in a real world setting, what he or she has learned in the classroom/lab during the previous instructional session. The student also becomes familiar with the dealership environment, its organizational structure and the competencies that are expected of a professional automotive technician.
# COURSE REQUIREMENTS FOR FORD ASSET

## A. GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Class</th>
<th>Lab</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 160</td>
<td>Technical Communication</td>
<td>3</td>
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<tr>
<td>ENG 260</td>
<td>Adv. Technical Communication</td>
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<tr>
<td>HSS 205</td>
<td>Technology and Society</td>
<td>3</td>
<td>0</td>
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<tr>
<td>MAT 155</td>
<td>Contemporary Mathematics</td>
<td>3</td>
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<tr>
<td>PSY 103</td>
<td>Human Relations</td>
<td>3</td>
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## B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Class</th>
<th>Lab</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 101</td>
<td>Engine Fundamentals</td>
<td>3</td>
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<tr>
<td>AUT 107</td>
<td>Advanced Engine Repair</td>
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<td>0</td>
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<tr>
<td>AUT 108</td>
<td>Introduction to Diesel Engines</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>AUT 111</td>
<td>Brakes</td>
<td>2</td>
<td>3</td>
<td>3</td>
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<tr>
<td>AUT 115</td>
<td>Manual Drivetrain/Axle</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>AUT 122</td>
<td>Suspension and Alignment</td>
<td>3</td>
<td>3</td>
<td>4</td>
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<tr>
<td>AUT 131</td>
<td>Electrical Systems</td>
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<td>0</td>
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<td>AUT 132</td>
<td>Automotive Electricity</td>
<td>3</td>
<td>3</td>
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<td>AUT 142</td>
<td>Heating and Air Conditioning</td>
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<td>AUT 145</td>
<td>Engine Performance</td>
<td>2</td>
<td>3</td>
<td>3</td>
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<tr>
<td>AUT 151</td>
<td>Automatic Transmission/Transaxle</td>
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<td>0</td>
<td>3</td>
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<tr>
<td>AUT 153</td>
<td>Automatic Transmission Diagnosis</td>
<td>2</td>
<td>3</td>
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<tr>
<td>AUT 160</td>
<td>Introduction to Automotive Tech.</td>
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<td>0</td>
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<tr>
<td>AUT 231</td>
<td>Automotive Electronics</td>
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<td>AUT 232</td>
<td>Automotive Accessories</td>
<td>2</td>
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<td>AUT 245</td>
<td>Advanced Engine Performance</td>
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<td>Coop. Work Experience I</td>
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<td>CWE 131</td>
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<td>CWE 212</td>
<td>Coop. Work Experience IV</td>
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<td>CWE 222</td>
<td>Coop. Work Experience V</td>
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<td>Coop. Work Experience VI</td>
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</table>

## C. ELECTIVES AND/OR OTHER REQUIRED COURSES

The student must complete two elective courses which total at least 4 credit hours (excluding COL 101).
COMPUTER NUMERICAL CONTROL OPERATOR

Certificate (Day and Evening)

The Computer Numerical Control (CNC) Machine Operator Certificate program trains persons in the programming, set-up and operation of CNC equipment. The program stresses knowledge and skills in blueprint reading, mathematics, machine tool theory and practice, CNC programming, and CNC machine tool operations. Major training emphasis in the program is directed at local CNC machine tool industry needs and requirements.

The exact length of the program depends upon course offerings and the number of courses taken by the student.

Upon registering, each new student should request a program outline.

Many of the courses listed require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation follow.

**Job Opportunities:** Machine tool operator, machinist apprentice, production machine operator, computer control machine operator, CNC Machine tool programmer.

### COURSE REQUIREMENTS FOR COMPUTER NUMERICAL CONTROL OPERATOR

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Class</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
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**A. GENERAL EDUCATION COURSES**

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
<th>Lab</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MAT 101</td>
<td>Beginning Algebra</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>MAT 168</td>
<td>Geometry &amp; Trigonometry</td>
<td>3</td>
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Industrial

B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EGT 104</td>
<td>Print Reading</td>
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<td>MTT 121</td>
<td>Machine Tool Theory I</td>
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<td>12</td>
<td>4</td>
</tr>
<tr>
<td>MTT 122</td>
<td>Machine Tool Practice I</td>
<td>0</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>MTT 123</td>
<td>Machine Tool Theory II</td>
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<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTT 124</td>
<td>Machine Tool Practice II</td>
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<tr>
<td>MTT 250</td>
<td>Principles of CNC</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>MTT 253</td>
<td>CNC Programming &amp; Operations</td>
<td>0</td>
<td>9</td>
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<tr>
<td>MTT 254</td>
<td>CNC Programming I</td>
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<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

C. ELECTIVES

None

BASIC ELECTRONICS

Certificate

The Basic Electronics certificate is a program designed to provide skills to persons entering the electronics field. During this program, the student will study basic electronics using diagnostic equipment. Major training emphasis in the program is directed at analog and digital circuits, motor controls and programmable logic controllers.

The exact length of the program depends upon course offerings and number of courses taken by the student. Many courses in the Basic Electronics certificate require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Job Opportunities: Motor Control installation and repair, Programmable Logic Controllers installation and repair, general electrical maintenance, electrical/electronic equipment sales.
# COURSE REQUIREMENTS FOR BASIC ELECTRONICS

## A. GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 160</td>
<td>Technical Communication</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MAT 101</td>
<td>Beginning Algebra</td>
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## B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>EEM 107</td>
<td>Industrial Computer Techniques</td>
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<td>3</td>
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<tr>
<td>EEM 117</td>
<td>AC/DC Circuits I</td>
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<td>AC/DC Circuits II</td>
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<td>EEM 125</td>
<td>Electronic Circuits</td>
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<td>EEM 131</td>
<td>Solid State Devices</td>
<td>3</td>
<td>3</td>
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<td>EEM 151</td>
<td>Motor Controls I</td>
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<td>3</td>
<td>4</td>
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<td>EEM 221</td>
<td>DC/AC Drives</td>
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<td>6</td>
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<td>EEM 251</td>
<td>Programmable Controllers</td>
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<td>Programmable Controllers</td>
<td>1</td>
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</tbody>
</table>

## C. ELECTIVES

None

### GENERAL TECHNOLOGY

**Associate Degree (Day and Evening)**

General Technology is a continuation program of cross-training which permits a student to receive training in an industrial area major (Automotive Technology, Industrial Electronics Technology, Industrial Mechanics, Heating, Ventilation and Air Conditioning, Machine Tool Technology, or Welding) and minor in another technical specialty. The student and faculty advisor agree upon a list and sequence of courses to meet a particular employment objective of the student. This course is 21 months in length for a full-time day student. Evening students normally take longer than 21 months to graduate.
Industrial

In order to graduate, full-time students enrolled in this program usually enroll in four or five courses per term which involve 22-28 class hours per week or average 18 credit hours per term. Part-time students require more terms of attendance to graduate. The exact length depends upon course offerings and the number of courses taken by the student.

Upon registering, each new student should request a program contract.

Many of the courses listed require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation follow.

To be accepted into the General Technology curriculum, a student must be a graduate of a one year diploma program or its equivalent (minimum CPR of 2.0). Students may begin the admissions process during their last term.

COURSE REQUIREMENTS FOR GENERAL TECHNOLOGY

<table>
<thead>
<tr>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
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</table>

A. GENERAL EDUCATION COURSES

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 160</td>
<td>Technical Communications</td>
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<td>0</td>
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<td>ENG 260</td>
<td>Advanced Technical Communications</td>
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</tr>
<tr>
<td>HSS 205</td>
<td>Technology &amp; Society</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAT 101</td>
<td>Beginning Algebra</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>MAT 168</td>
<td>Geometry &amp; Trigonometry</td>
<td>3</td>
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<td>Human Relations</td>
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</tr>
</tbody>
</table>

B. MAJOR COURSES

Primary Technical Specialty (select one): 28 SHC (min.)

1. Automotive Technology: AUT 101 (3.0), AUT 112 (4.0), AUT 115 (3.0), AUT 122 (4.0), AUT 131 (3.0), AUT 141 (4.0), AUT 132 (4.0), AUT 147 (4.0).
Industrial

2. H.V.A.C. Technology: ACR 101 (5.0), ACR 110 (4.0), ACR 120 (4.0), ACR 130 (4.0), ACR 140 (3.0), ACR 210 (4.0), ACR 231 (4.0).

3. Industrial Electronics Technology: EEM 107 (2.0), EEM 117 (4.0), EEM 118 (4.0), EEM 125 (2.0), EEM 131 (4.0), EEM 151 (4.0), EEM 231 (3.0), EEM 241 (3.0), EEM 242 (3.0).

4. IET/Automated Manufacturing Option: AMT 105 (3.0), EEM 117(4.0), EEM 118 (4.0), EEM 125 (2.0), EEM 131 (4.0), EEM 151 (4.0), EEM 231 (3.0), EEM 241 (3.0), EEM 242 (3.0).

5. Industrial Mechanics: IMT 102 (2.0), IMT 104 (2.0), IMT 111 (5.0), IMT 120 (5.0), IMT 130 (5.0), IMT 140 (5.0), IMT 161 (4.0).

6. Machine Tool Technology: EGT 104 (3.0), EGT 108 (2.0), MTT 121 (3.0), MTT 122 (4.0), MTT 123 (3.0), MTT 124 (4.0), MTT 141 (3.0), MTT 211 (3.0), MTT 250 (3.0).

7. Welding: WLD 103 (1.0), WLD 105 (1.0), WLD 106 (4.0), WLD 113 (4.0), WLD 115 (4.0), WLD 132 (4.0), WLD 136 (2.0), WLD 154 (4.0), WLD 208 (3.0), WLD 212 (2.0).

Secondary Technical Specialty: 12.0 SHC (min.)

An additional 12 semester hours (minimum) in another technical area is required.

C. ELECTIVES AND/OR OTHER HOURS REQUIRED FOR GRADUATION

Additional courses/technical electives 12.0 SHC (min.)
Electives 4.0 SHC (min. - excluding COL 101).

HEATING, VENTILATION, AIR CONDITIONING TECHNOLOGY

Associate Degree (Day and Evening)

The Heating, Ventilation, Air Conditioning (HVAC) career field has four divisions: domestic, commercial, industrial, and controls. Spartanburg Technical College HVAC graduates repair, install and maintain equipment such as home
Industrial

heating equipment and central air conditioners. They can also work on the larger commercial equipment for cooling and heating. Graduates of HVAC may choose the industrial field to work on large scale equipment in multi-story buildings, hospitals, and nuclear or solar power applications. HVAC technicians are in great demand throughout industry. This course is 21 months in length for a full-time day student.

In order to graduate, full-time students enrolled in this program usually enroll in four or five courses per term which average 22-29 class hours per week or average 17 credit hours per term. Part-time students usually require more terms of attendance to graduate. The exact length depends upon course offerings and the number of courses taken by the student.

Upon registering, each new student should request a program outline which describes the courses.

Many of the courses listed below and on the following page require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation follow.

Job Opportunities: Sales in refrigeration and air conditioning, installer in refrigeration and air conditioning, troubleshooter in refrigeration and air conditioning, and electrical controls technician.

COURSE REQUIREMENTS FOR HEATING, VENTILATION & AIR-CONDITIONING TECHNOLOGY

<table>
<thead>
<tr>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>A. GENERAL EDUCATION COURSES</td>
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<tr>
<td>ENG 160</td>
<td>Technical Communications</td>
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<td>ENG 260</td>
<td>Adv. Technical Communications</td>
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<td>MAT 155</td>
<td>Contemporary Math</td>
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<td>PSY 103</td>
<td>Human Relations</td>
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<td>HSS 205</td>
<td>Technology &amp; Society</td>
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B. MAJOR COURSES

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<th>Class</th>
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<td>Blueprint Reading HVAC</td>
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<td>ACR 106</td>
<td>Basic Electricity HVAC</td>
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<td>Principles of Air Conditioning</td>
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<td>ACR 140</td>
<td>Automatic Controls</td>
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<td>ACR 210</td>
<td>Heat Pumps</td>
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<td>ACR 222</td>
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<td>Codes &amp; Ordinances</td>
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<td>WLD 102</td>
<td>Introduction to Welding</td>
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</table>

C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 4 credit hours (excluding COL 101).

INDUSTRIAL ELECTRONICS TECHNOLOGY

Associate Degree (Day and Evening)

Industrial Electronics Technology pertains to the repair of all types of electrical and electronic equipment, including motor controllers, digital controllers, and instrumentation controls found in various industrial plants and hospitals in this area. Industrial Electronics is a broad field that encompasses manufacturing, medical, and safety controls and environmental control equipment, including programmable controllers. This course is 21 months in length for a full-time day student. Evening students may take longer than 21 months to complete the program. New students should plan to enroll Fall Semester.
Industrial

In order to graduate, full-time students enrolled in this program usually enroll in four or five courses per term which include 22-28 class hours per week or average 18 credit hours per term. Part-time students usually require more semesters of attendance to graduate. The exact length depends upon course offerings and the number of courses taken by the student.

Upon registering, each new student should request a program outline which describes the courses and the specific terms in which they are scheduled.

Many of the courses listed below and on the following page require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation follow.

Practical Application: Students in the Industrial Electronics Technology Department are involved in using test equipment, operating motor controllers, operating electronic motors, and building electronic circuits. In addition, these students are involved with microprocessor programming and operations, programmable logic controllers (PLC) programming and operations, fundamental computer programming and operations, and basic robotics.

Job Opportunities: Electronic instrumentation repair, electronic troubleshooter in plant, electronic equipment installer, plant electrician, power distribution, computer maintenance, general electrical wiring, broadcast station repair and maintenance, electrician and electronics helper, general building maintenance (electrical), and bio-medical repair technician.

COURSE REQUIREMENTS FOR INDUSTRIAL ELECTRONICS TECHNOLOGY

<table>
<thead>
<tr>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
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<tbody>
<tr>
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<td></td>
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<tr>
<td>ENG 160</td>
<td>Technical Communications</td>
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<tr>
<td>ENG 260</td>
<td>Advanced Technical Communication</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>HSS 205</td>
<td>Technology and Society</td>
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<td>0</td>
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<tr>
<td>MAT 168</td>
<td>Geometry &amp; Trigonometry</td>
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<td>0</td>
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<tr>
<td>MAT 101</td>
<td>Beginning Algebra</td>
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<tr>
<td>PSY 103</td>
<td>Human Relations</td>
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</table>
B. MAJOR COURSES

<table>
<thead>
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<th>Course</th>
<th>Title</th>
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<th>Lab</th>
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<td>EEM 117</td>
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<td>4</td>
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<td>EEM 118</td>
<td>AC/DC Circuits II</td>
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<td>9</td>
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<td>EEM 125</td>
<td>Electronic Circuits</td>
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<td>6</td>
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</tr>
<tr>
<td>EEM 131</td>
<td>Solid State Devices</td>
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<td>EEM 151</td>
<td>Motor Control I</td>
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<td>EEM 211</td>
<td>AC Machines</td>
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<td>3</td>
</tr>
<tr>
<td>EEM 221</td>
<td>AC/DC Drives</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>EEM 231</td>
<td>Digital Circuits I</td>
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<td>EEM 241</td>
<td>Microprocessors I</td>
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<td>EEM 242</td>
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<td>EEM 251</td>
<td>Programmable Controllers</td>
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<td>EEM 252</td>
<td>Programmable Controllers Applications</td>
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<td>EEM 275</td>
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<td>EEM 276</td>
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</table>

C. ELECTIVES AND/OR ADDITIONAL COURSES

REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 4 credit hours (excluding COL 101).

INDUSTRIAL ELECTRONICS TECHNOLOGY
AUTOMATED MANUFACTURING TECHNOLOGY
OPTION

Associate Degree

Industrial Electronics Technology/Automated Manufacturing Technology Option is an application oriented two year program. Graduates of the program will be trained in maintenance, installation, operation and servicing of high technology automated systems. Emphasis in the program will include analysis, troubleshooting, and operation of a flexible manufacturing system as well as a robot work cell. The course is 21 months in length for the full-time day student. Evening students may require more than 21 months to complete the program.

In order to graduate, full-time students enrolled in this program usually enroll in four or five courses per term which involve 22-28 class hours per week or average 18 credit hours.
Industrial

hours per term. Part-time students usually require more terms of attendance to graduate. The exact length depends upon course offerings and the number of courses taken by the student.

Upon registering, each new student should request a program outline which describes the courses and the specific terms in which they are scheduled.

Many of the courses listed below and on the following page require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation follow.

Practical Application: Students of the Industrial Electronics Technology/Automated Manufacturing Technology program experience training on robots, computer integrated systems, robot controllers, programmable logic controllers, microprocessors, motor control circuits, electronic circuits, mechanical systems, fluid power systems and computer programming.

Job Opportunities: Robotics technician, automated systems technician, maintenance/robots, electromechanical technician, systems specialist. Areas of employment will include manufacturing, assembly, finishing and materials handling.

COURSE REQUIREMENTS FOR
INDUSTRIAL ELECTRONICS TECHNOLOGY
AUTOMATED MANUFACTURING TECHNOLOGY

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
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<tr>
<td>A.</td>
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<tr>
<td></td>
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<td>Class Lab</td>
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<td>ENG 260</td>
<td>Adv. Technical Communications</td>
<td>3 0 3</td>
</tr>
<tr>
<td>MAT 101</td>
<td>Beginning Algebra</td>
<td>3 0 3</td>
</tr>
<tr>
<td>MAT 168</td>
<td>Geometry &amp; Trigonometry</td>
<td>3 0 3</td>
</tr>
<tr>
<td>PSY 103</td>
<td>Human Relations</td>
<td>3 0 3</td>
</tr>
<tr>
<td>HSS 205</td>
<td>Technology and Society</td>
<td>3 0 3</td>
</tr>
<tr>
<td>B.</td>
<td>MAJOR COURSES</td>
<td></td>
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<tr>
<td>AMT 105</td>
<td>Robotics and Aut. Control I</td>
<td>3 0 3</td>
</tr>
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</table>
C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 4 credit hours (excluding COL 101).

INDUSTRIAL ELECTRONICS TECHNOLOGY AUTOMATED MANUFACTURING TECHNOLOGY OPTION

TECHNICAL SCHOLARS OPTION
Associate Degree- 36 months; Day

The Technical Scholars program sponsors students in this associate degree program.

The Technical Scholars program selects students meeting specific eligibility requirements for Industrial Electronics Technology-Automated Manufacturing Technology Option-Technical Scholars Option. Students attend class and are sponsored by an industry for class-related work experience at the sponsoring industry site for part of each week. See "Technical Scholars" in this catalog for more information.
Industrial

INDUSTRIAL MECHANICS

Diploma (Day and Evening)

Industrial Mechanics are concerned with the installation, maintenance and repair of machinery and production facilities of industrial plants. The Industrial Mechanic must be knowledgeable in blueprint reading, mathematics, hydraulics, pneumatics, basic electricity, basic welding, and the proper use of hand and power tools, as well as develop analytical skills and mechanical ability to troubleshoot and make many different types of repairs. This program is 12 months in length for a full-time day student. Evening students will require more than 12 months to complete the program.

In order to graduate, full-time students enrolled in this program usually enroll in four or five courses per term which include approximately 28 class hours per week or average 17 credit hours per term. Part-time students require more semesters of attendance to graduate. The exact length depends upon course offerings and the number of courses taken by the student.

Upon registering, each new student should request a program outline which describes the courses and the specific term in which they are scheduled.

Many of the courses listed require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation follow.

Job Opportunities: General industrial plant mechanic, industrial machinery mechanic, machinery overhauler, machinery repairman, machinery rebuilder, mechanical maintenance mechanic, and quality control technician.

COURSE REQUIREMENTS FOR INDUSTRIAL MECHANICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
<th>Class</th>
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<tbody>
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143
B. MAJOR COURSES

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<th>Course</th>
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<th>Credit</th>
<th>Lab</th>
<th>Hours</th>
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<td>IMT 104</td>
<td>Schematics</td>
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<tr>
<td>IMT 105</td>
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<tr>
<td>IMT 111</td>
<td>Industrial Tools</td>
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<td>IMT 120</td>
<td>Mechanical Installation</td>
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<td>IMT 140</td>
<td>Industrial Electricity</td>
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<td>IMT 141</td>
<td>Electrical Control Devices</td>
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<td>IMT 161</td>
<td>Mechanical Power Applications</td>
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<td>IMT 170</td>
<td>Statistical Process Control</td>
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<tr>
<td>WLD 102</td>
<td>Introduction to Welding</td>
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</table>

C. ELECTIVES

None

MACHINE TOOL TECHNOLOGY

Associate Degree (Day and Evening)

Machine Tool Technology deals with the setup and operation of all standard machine tools and the manufacturing of precision metal parts. Nearly all the products used in farming, mining, manufacturing, construction, transportation, and communication depend upon the skill of the machinist and the precision tool and diemaker. The machinist/tool and diemaker must be knowledgeable in the areas of mathematics, blueprint reading, mechanical drawing, metals, CNC and heat treatment. This course is 21 months in length for a full-time day student. The exact length of the program depends upon course offerings and the number of courses taken by the student.

Upon registering, each new student should request a program outline which describes the courses and the terms in which they may be scheduled.

Many of the courses listed on the following page require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.
Industrial

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation follow.

**Practical Application:** Students experience training on engineering lathes, milling machines, surface grinders, cylindrical grinders, and drill press operations. In addition, students work with the electrical discharge machines and computer numerical control (CNC) machines. Students also draw detailed blueprints.

**Job Opportunities for Machine Shop:** Machine tool operator, machinist, machinist repairman, job shop machinist, tool and die repairman, CNC machine tool operator and setup.

**Job Opportunities for Machine Tool Technology:** Tool room machinist, machinist, machinist repairman, tool and die maker, job shop machinist, tool and die repairman, CNC machine tool operator and setup.

### COURSE REQUIREMENTS FOR MACHINE TOOL TECHNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
</table>
| A. GENERAL EDUCATION COURSES
| ECO 101     | Basic Economics                  | 3      | 0     | 3   |
| ENG 160     | Technical Communications         | 3      | 0     | 3   |
| ENG 260     | Advanced Technical Comm.         | 3      | 0     | 3   |
| HSS 205     | Technology and Society           | 3      | 0     | 3   |
| MAT 101     | Beginning Algebra                | 3      | 0     | 3   |
| MAT 168     | Geometry & Trigonometry          | 3      | 0     | 3   |
| B. MAJOR COURSES
| EGT 104     | Print Reading                    | 3      | 0     | 3   |
| EGT 108     | Adv. Print Reading & Sketching   | 1      | 3     | 2   |
| MTT 121     | Machine Tool Theory I            | 3      | 0     | 3   |
| MTT 122     | Machine Tool Practice I          | 0      | 12    | 4   |
| MTT 123     | Machine Tool Theory II           | 3      | 0     | 3   |
### Industrial

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>MTT 124</td>
<td>Machine Tool Practice II</td>
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<tr>
<td>MTT 125</td>
<td>Machine Tool Theory III</td>
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<td>Machine Tool Practice III</td>
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<tr>
<td>MTT 141</td>
<td>Metals &amp; Heat Treatment</td>
<td>3</td>
<td>0</td>
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<tr>
<td>MTT 211</td>
<td>Die Theory</td>
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<td>MTT 215</td>
<td>Tool Room Machining I</td>
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<td>MTT 216</td>
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<td>MTT 241</td>
<td>Jigs &amp; Fixtures I</td>
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<td>MTT 246</td>
<td>Plastic Moldmaking I</td>
<td>2</td>
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<tr>
<td>MTT 250</td>
<td>Principles of CNC</td>
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<td>MTT 253</td>
<td>CNC Programming &amp; Operations</td>
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<td>CNC Programming I</td>
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</table>

#### C. ELECTIVES AND/OR OTHER COURSES REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 4 credit hours (excluding COL 101).

### NUCLEAR SERVICE TECHNOLOGY

The Associate Degree in Nuclear Service Technology provides skills to meet the needs of the Nuclear Field Service employee. Admission is restricted to employees referred by participating industries. This course is 18 months in length for a full-time student. The exact length of the program depends on the semester enrolled, transfer credits and course load taken.

### COURSE REQUIREMENTS FOR NUCLEAR SERVICE TECHNOLOGY

#### A. GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>ENG 160</td>
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<td>ENG 260</td>
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### Industrial

<table>
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<tr>
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<tr>
<td>HSS 205</td>
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<tr>
<td>MAT 101</td>
<td>Beginning Algebra</td>
<td>3</td>
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<tr>
<td>MAT 168</td>
<td>Geometry &amp; Trigonometry</td>
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<tr>
<td>PHS 111</td>
<td>Conceptual Physics</td>
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<td>PSY 103</td>
<td>Human Relations</td>
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### B. MAJOR COURSES

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<th>Course Code</th>
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<tr>
<td>IMT 102</td>
<td>Industrial Safety</td>
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<td>IMT 104</td>
<td>Schematics</td>
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<tr>
<td>IMT 105</td>
<td>Mechanical Sketching</td>
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<td>IMT 131</td>
<td>Hydraulics and Pneumatics</td>
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<tr>
<td>IMT 140</td>
<td>Industrial Electricity</td>
<td>3</td>
</tr>
<tr>
<td>NET 110</td>
<td>Radiological Education Maintenance</td>
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<tr>
<td>NET 111</td>
<td>Pressurized Water Reactor Fundamentals</td>
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<tr>
<td>NET 120</td>
<td>Intro. to Nuclear Quality Assurance</td>
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<tr>
<td>*NET 201</td>
<td>Steam Generator</td>
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<tr>
<td>*NET 202</td>
<td>Fuel Servicing</td>
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<td>Cooperative Work Experience I</td>
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<td>CWE 213</td>
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</tbody>
</table>

### C. ELECTIVES AND/OR OTHER ADDITIONAL COURSES REQUIRED FOR GRADUATION

The student must complete two elective courses which total at least 4 credit hours (excluding COL 101).

* Select one course (minimum).

### WELDING

**Diploma (Day)**

The Welding curriculum is designed to fill the needs of a rapidly growing
Industrial field. This program gives the student a sound understanding of the principles, techniques, and skills essential for successful employment in the welding field and metals industry. The field of welding offers a future of continuous employment.

The program is 12 months in length for a full-time student. Students may enter each term to earn a diploma. Emphasis will be placed on blueprint reading, plate, mild steel pipe, and stainless steel pipe welding. Applications used are gas, electric arc, mig, and tig welding. A good background in these areas will enable the student to work in nuclear power, construction, and maintenance fields.

In order to graduate, full-time students enrolled in this program usually enroll in four or five courses per term which involve 22-28 class hours per week or average 18 credit hours per term. Part-time students usually require more terms of attendance to graduate. The exact length depends upon course offerings and the number of courses taken by the student.

Upon registering, each new student should request a program outline which describes the courses.

Many of the courses listed require successful completion of other courses. These prerequisites are specified at the end of each course description at the back of this catalog.

Any questions concerning scheduling of courses or graduation requirements can be answered through the program advisor or department head. Program requirements for graduation follow.

COURSE REQUIREMENTS FOR WELDING

Diploma (Day)

<table>
<thead>
<tr>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
</table>

A. GENERAL EDUCATION COURSES

| HSS 205 Technology and Society | 3 | 0 | 3 |
| ENG 160 Technical Communications | 3 | 0 | 3 |
| MAT 150 Fundamentals of Math | 3 | 0 | 3 |
### Industrial

#### B. MAJOR COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Lab</th>
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<td>WLD 103</td>
<td>Print Reading I</td>
<td>1</td>
<td>0</td>
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<tr>
<td>WLD 105</td>
<td>Print Reading II</td>
<td>1</td>
<td>0</td>
<td>1</td>
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<tr>
<td>WLD 106</td>
<td>Gas and Arc Welding</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>WLD 113</td>
<td>Arc Welding II</td>
<td>2</td>
<td>6</td>
<td>4</td>
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<tr>
<td>WLD 115</td>
<td>Arc Welding III</td>
<td>2</td>
<td>6</td>
<td>4</td>
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<tr>
<td>WLD 117</td>
<td>Specialized Arc Welding</td>
<td>2</td>
<td>6</td>
<td>4</td>
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<tr>
<td>WLD 132</td>
<td>Inert Gas Welding Ferrous</td>
<td>2</td>
<td>6</td>
<td>4</td>
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<tr>
<td>WLD 136</td>
<td>Advanced Inert Gas Welding</td>
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<td>6</td>
<td>2</td>
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<tr>
<td>WLD 154</td>
<td>Pipefitting &amp; Welding</td>
<td>3</td>
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<tr>
<td>WLD 208</td>
<td>Advanced Pipe Welding</td>
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<td>3</td>
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<tr>
<td>WLD 212</td>
<td>Destructive Testing</td>
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#### C. ELECTIVES

None

### COURSE REQUIREMENTS FOR WELDING

**Certificate (Evening)**

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
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<td>WLD 106</td>
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<td>WLD 113</td>
<td>Arc Welding II</td>
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<td>WLD 115</td>
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<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>WLD 117</td>
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<td>4</td>
</tr>
<tr>
<td>WLD 132</td>
<td>Inert Gas Welding Ferrous</td>
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<td>6</td>
<td>4</td>
</tr>
<tr>
<td>WLD 136</td>
<td>Advanced Inert Gas Welding</td>
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### Industrial

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<th>Course</th>
<th>Description</th>
<th>Class</th>
<th>Lab</th>
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<tbody>
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<td>WLD 208</td>
<td>Advanced Pipe Welding</td>
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<td>WLD 212</td>
<td>Destructive Testing</td>
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</table>

**C. ELECTIVES**

None
ACC 101 ACCOUNTING PRINCIPLES I (2-3-3.0)
This course introduces basic accounting procedures for analyzing, recording, and summarizing financial transactions, adjusting and closing the financial records at the end of the accounting cycle, and preparing financial statements. Emphasis is also placed on accounting for current and long-term assets, current liabilities, and partnerships.
Prerequisite(s): None

ACC 102 ACCOUNTING PRINCIPLES II (2-3-3.0)
This course emphasizes managerial accounting theory and practice in basic accounting and procedures for cost accounting, budgeting, cost-volume analysis, and financial statement analysis. Additional financial topics covered will include accounting for long-term liabilities, corporations, and cash flow statements.
Prerequisite(s): ACC 101 with a grade of "C" or better.

ACC 111 ACCOUNTING CONCEPTS (3-0-3.0)
This course is a study of the principles of the basic accounting functions—collecting, recording, analyzing, and reporting information.
Prerequisite(s): None

ACC 124 INDIVIDUAL TAX PROCEDURES (3-0-3.0)
This course is a study of the basic income tax structure from the standpoint of the individual, including the preparation of individual income tax returns.
Prerequisite(s): None

ACC 201 INTERMEDIATE ACCOUNTING I (3-0-3.0)
This course explores fundamental processes of accounting theory, including the preparation of financial statements. Topics will include current asset and liability management as well as future and present value of cash flows.
Prerequisite(s): ACC 102 with a grade of "C" or better.

ACC 202 INTERMEDIATE ACCOUNTING II (3-0-3.0)
This course covers the application of accounting principles and concepts to account evaluation and income determination, including special problems peculiar to corporations and the analysis of financial reports. Other topics will include cash flow statements and constructing financial statements from incomplete records.
Prerequisite(s): ACC 201 with a grade of "C" or better.

ACC 230 COST ACCOUNTING I (3-0-3.0)
This course is a study of the accounting principles involved in job order cost systems. Topics will include the general flow of costs through a production cycle, and the preparation and use of job cost sheets. Process cost systems will be introduced.
Prerequisite(s): ACC 102 with a grade of "C" or better.

ACC 231 COST ACCOUNTING II (3-0-3.0)
This course is a study of the accounting principles involving processing and standard cost systems. Emphasis will be placed on cost variance analysis, joint product and by-product costing, direct costing, break-even analysis, cost-volume profit analysis, budgeting and decision-making.
Prerequisite(s): ACC 230 with a grade of "C" or better.
ACR 240 COMPUTERIZED ACCOUNTING (3-0-3.0)
This course is a study of using the computer to design and implement various accounting functions, including financial transactions, records, statements, reports and documents. Emphasis will be placed on providing analytical studies using output information. This course will involve hands-on training using microcomputers.
Prerequisite(s): ACC 101 with a grade of “C” or better.

ACR 101 FUNDAMENTALS OF REFRIGERATION (3-6-5.0)
This course covers the refrigeration cycle, refrigerants, pressure temperature relationship, and system components.

ACR 104 PRINT READING FOR HVAC (0-3-1.0)
This course covers reading and interpreting prints used in HVAC installation and maintenance.

ACR 106 BASIC ELECTRICITY FOR HVAC/R (3-3-4.0)
This course includes a basic study of electricity, including Ohms’ Law and series and parallel circuits as they relate to heating, ventilating, air conditioning and/or refrigeration systems.

ACR 110 HEATING FUNDAMENTALS (3-3-4.0)
This course covers the basic concepts of oil, gas, and electric heat, their components and operation.

ACR 120 BASIC AIR CONDITIONING (3-3-4.0)
This course is a study of various types of air conditioning equipment including electrical components, schematics and service to the refrigerant circuit.

ACR 122 PRINCIPLES OF AIR CONDITIONING (4-3-5.0)
This course is a study of the air cycle, psychrometrics, load estimating and equipment selection.

ACR 130 DOMESTIC REFRIGERATION (3-3-4.0)
This course is a study of domestic refrigeration equipment.

ACR 140 AUTOMATIC CONTROLS (2-3-3.0)
This course is a study of the adjustment, repair and maintenance of a variety of pressure and temperature sensitive automatic controls.

ACR 210 HEAT PUMPS (3-3-4.0)
This course is a study of theory and operational principles of the heat pump.

ACR 220 ADVANCED AIR CONDITIONING (3-3-4.0)
This course is an advanced study of air conditioning systems.

ACR 221 RESIDENTIAL LOAD CALCULATIONS (2-0-2.0)
This course is a study of heat losses/gains in residential structures.
ACR 222 COMMERCIAL LOAD CALCULATIONS (2-0-2.0)
This course is a study of heat losses/gains in commercial structures.

ACR 223 TESTING AND BALANCING (2-3-3.0)
This course covers testing and balancing of air distribution duct work and water flow in piping.

ACR 224 CODES AND ORDINANCES (1-3-2.0)
This course covers instruction on how to reference appropriate building codes and ordinances where they apply to installation of heating and air conditioning equipment.

ACR 231 ADVANCED REFRIGERATION (3-3-4.0)
This course is an in-depth study of commercial and industrial refrigeration equipment.

ACR 240 ADVANCED AUTOMATIC CONTROLS (2-3-3.0)
This course is a study of pneumatic and electronic controls used in air conditioning and refrigeration.

AET 110 ARCHITECTURAL GRAPHICS I (1-6-3.0)
This course is an introduction to the skills of architectural manual drafting.

AET 111 ARCHITECTURAL COMPUTER GRAPHICS I (2-3-3.0)
This course includes architectural/construction, basic computer-aided design commands, and creation of construction industry symbols and standards.
Corequisite(s): AET 110

AET 120 ARCHITECTURAL GRAPHICS II (1-6-3.0)
This course requires the production of a set of working drawings of a residential or commercial building. Exercises incorporate construction methods, materials, building code requirements, site development, and technical skills required to draw and graphically present projects.
Prerequisite(s): AET 110

AET 201 BUILDING SYSTEMS II (2-3-3.0)
This course covers mechanical systems, electrical systems and code requirements for residential, commercial, and industrial buildings.
Corequisite(s): MET 222

AET 221 ARCHITECTURAL COMPUTER GRAPHICS II (3-3-4.0)
This course includes a study of cad commands with architectural applications and routines. A complete set of working drawings of a residential or commercial building using the computer as the drafting tool is produced.
Prerequisite(s): AET 111

AET 247 MANUFACTURING OF PREFABRICATED STRUCTURES (4-0-4.0)
This course covers the study and application of the methods and procedures of manufacturing pre-engineered and pre-cut buildings and structural systems.
Prerequisite(s): EGR 194
AHS

AHS 101 INTRODUCTION TO HEALTH PROFESSIONS (2-0-2.0)
This course provides a study of the health professions and the health care industry.

AHS 102 MEDICAL TERMINOLOGY (3-0-3.0)
This course covers medical terms, including roots, prefixes, and suffixes, with emphasis on spelling, definition, and pronunciation.

AHS 104 MEDICAL VOCABULARY/ANATOMY (3-0-3.0)
This course introduces the fundamental principles of medical terminology and includes a survey of human anatomy and physiology.

AHS 105 MEDICAL ETHICS AND LAW (2-0-2.0)
This course provides a study of ethical conduct and legal responsibility related to health care.

AHS 106 CARDIOPULMONARY RESUSCITATION (1-0-1.0)
This course provides a study of the principles of cardiopulmonary resuscitation.

AHS 109 PERSONAL/COMMUNITY HEALTH (3-0-3.0)
This course provides a study of personal/community health and man's relation to the environment.

AHS 110 PATIENT CARE PROCEDURES (2-0-2.0)
This course provides a study of the procedures and techniques used in the general care of the patient.

AHS 111 HEALTH RELATED SCIENCES (3-3-4.0)
This course introduces modules of instruction in chemistry, microbiology, and physics with emphasis on their application to health care.

AHS 114 BASIC FIRST AID (1-0-1.0)
This course provides instruction in basic procedures used in medical emergencies.

AHS 117 NURSE ASSISTING (3-3-4.0)
This course includes a study of concepts required to assist in the care of patients.

AHS 118 MEDICAL CODING AND INSURANCE (3-6-5.0)
This course includes a study of coding procedures and their relationship to insurance.
Prerequisite(s): AHS 123, OST 165 with a grade of "C" or better

AHS 122 ANATOMY BASED MEDICAL TERMINOLOGY I (5-0-5.0)
This course introduces the study of the body systems/functions and medical terminology for each system.

AHS 123 ANATOMY BASED MEDICAL TERMINOLOGY II (5-0-5.0)
This course introduces the study of the body systems/functions and medical terminology for each system. This is a continuation of AHS 122.
Prerequisite(s): AHS 122 with a grade of "C" or better
AMT 105 ROBOTICS & AUTOMATED CONTROL I (3-0-3.0)
This course includes assembling, testing, and repairing equipment used in automation. Concentration is on connecting, testing, and evaluating automated controls and systems.

AMT 205 ROBOTICS AND AUTOMATED CONTROL II (1-6-3.0)
This course covers installation, testing, troubleshooting, and repairing of automated systems.

AMT 206 ELECTRICITY & AUTOMATION (2-0-2.0)
This course progresses from introduction to principles of automation, including a study of various mechanical devices used in automated manufacturing, and electrical components used to control the machines. Lab projects include design, fabrication, and operation of various real and simulated processes.

ANT 101 GENERAL ANTHROPOLOGY (3-0-3.0)
This course is the study of physical and cultural anthropology. This course explores subfields of anthropology to examine primatology, human paleontology, human variation, archaeology and ethnology.

*ART 101 ART HISTORY AND APPRECIATION (3-0-3.0)
This is an introductory college transfer course designed to expose students to the history and appreciation of art, including the elements and principles of the visual arts.

ASL 101 AMERICAN SIGN LANGUAGE I (3-3-4.0)
This course is designed to expose students to visual readiness and basic vocabulary, grammar feature and non-manual behaviors all focusing on receptive language skill development.

ASL 102 AMERICAN SIGN LANGUAGE II (3-3-4.0)
This course is a continuation of ASL 101 designed to expose students to additional vocabulary, grammar features and non-manual behaviors all focusing on conversational skills.
Prerequisite: American Sign Language I or equivalent skills.

ASL 103 AMERICAN SIGN LANGUAGE III (3-3-4.0)
This course is a continuation of ASL 102 and covers additional vocabulary, grammar features and non-manual behaviors all focusing on conversational skills.
Prerequisite: American Sign Language II or equivalent skills.

ASL 104 AMERICAN SIGN LANGUAGE IV (3-3-4.0)
This course concentrates on intermediate conversational and discourse skills using American Sign Language. This course is conducted entirely using American Sign LANGUAGE.
Prerequisite: American Sign Language III or equivalent skills.

*AST 101 SOLAR SYSTEM ASTRONOMY (3-3-4.0)
This college transfer course is a descriptive survey of the universe with emphasis on basic physical concepts and the objects in the solar system. Related topics of current interest are included in the course.
*AST 102 STELLAR ASTRONOMY (3-3-4.0)
This college transfer course is a descriptive survey of the universe with emphasis on basic physical concepts and galactic and extragalactic objects. Related topics of current interest are included in the course.

AUT 101 ENGINE FUNDAMENTALS (3-0-3.0)
This course is a study of automotive engine fundamentals, of engine operations, including horsepower calculations, cubic inch displacement calculations, efficiency combustion theory, etc. Types of engines, cylinders, valve arrangements, lubrications, fuel, exhaust, and cooling systems are also included.

AUT 104 ENGINE REBUILDING (2-9-5)
This course is a study of in-shop procedures of engine disassembly and reassembly, including pertinent measurements and cylinder head preparation.

AUT 107 ADVANCED ENGINE REPAIR (4-0-4.0)
This course includes an advanced application of engine fundamentals, including engine removal, internal diagnostic and repair procedures, engine assembly and installation procedures.

AUT 108 INTRODUCTION TO DIESEL ENGINES (3-0-3.0)
This course is a basic study in the operation of diesel engines, including types of engines, cylinder head design, valve arrangement, lubrication, fuel, cooling and exhaust systems.

AUT 111 BRAKES (2-3-3.0)
This course is a study of the fundamentals of hydraulics and brake components in their application to automotive brake systems.

AUT 112 BRAKING SYSTEMS (2-6-4.0)
This course covers hydro-boost power brakes and vacuum power brakes as well as master cylinders and caliper rebuilding.

AUT 115 MANUAL DRIVE TRAIN/AXLE (2-3-3.0)
This course is a basic study of clutches, gearing, and manual transmission operation, including the basic study of rear axles and rear axle setup.

AUT 122 SUSPENSION AND ALIGNMENT (3-3-4.0)
This course is a study of suspension and steering systems, including non-adjustable and adjustable wheel alignment angles and application of balancing and alignment equipment.

AUT 131 ELECTRICAL SYSTEMS (3-0-3.0)
This course is a study of the individual systems and components which when combined form the entire automobile electrical system. This course includes starting and charging systems, ignition, engine, chassis, and accessory systems as well as instruction in the proper use of electrical schematics.

AUT 132 AUTOMOTIVE ELECTRICITY (3-3-4.0)
This course is a study of electricity as used in automotive applications. This course includes DC and AC principles and their various uses in the automobile. The relationship between OHM's law and actual automotive circuits is demonstrated.
AUT 141 INTRODUCTION TO HEATING AND AIR CONDITIONING (2-6-4.0)
This course is a basic study of the principles of heat transfer and refrigeration in automotive technology.

AUT 142 HEATING AND AIR CONDITIONING (2-3-3.0)
This course covers the purpose, construction, operation, diagnosis, and repair of automotive ventilation, heating and air conditioning systems of automotives.

AUT 145 ENGINE PERFORMANCE (2-3-3.0)
This course covers the diagnosis of various performance problems using the appropriate diagnostic equipment and diagnostic manuals. Logical thinking is also included in the course.

AUT 146 EMISSION SYSTEMS (3-0-3.0)
This course is a study of the various emission systems currently in use with emphasis placed on the importance of proper system operations, the effects of improper operation on engine performance, and diagnostic equipment.

AUT 147 FUEL SYSTEMS (3-3-4.0)
This course is a study in basic fuel delivery systems, including types of fuel, fuel pumps, principles of carburetion, computer controlled carburetor operation and service, and an introduction to fuel injection systems. Symptoms and diagnosis of malfunctioning systems are emphasized.

AUT 151 AUTOMOTIVE TRANSMISSION/TRANSAXLE (3-0-3.0)
This course is a basic study of automotive transmission and transaxle service, including proper procedures for doing minor transmission and transaxle removal and replacement procedures.

AUT 152 AUTOMOTIVE TRANSMISSION (2-6-4.0)
This course is a basic study of power flow and hydraulics, including torque converter operation.

AUT 153 AUTOMATIC TRANSMISSION DIAGNOSIS (2-3-3.0)
This course is a basic study of powerflow charts and their use in diagnosing automatic transmissions, including the use of pressure testing in diagnosing automatic transmission concerns.

AUT 160 INTRODUCTION TO AUTOMOTIVE TECHNOLOGY (1-0-1.0)
This course is an introduction to the automotive field, including an introduction to the different automotive fields available such as automotive technician, shop foreman, service manager, shop owner, etc.

AUT 231 AUTOMOTIVE ELECTRONICS (3-3-4.0)
This course includes the study of solid state devices, microprocessors, and complete diagnostics using the latest available equipment.
BIO

AUT 232 AUTOMOTIVE ACCESSORIES (2-0-2.0)
This course is a study of devices and systems considered accessories by the automotive industry. Study includes windshield wiper systems, power door locks, windows and seats, radios, and clocks.

AUT 245 ADVANCED ENGINE PERFORMANCE (4-3-5.0)
This course includes “hands-on” diagnostics, including an in-depth study and use of the oscilloscope in diagnosing engine performance problems.

AUT 251 AUTOMATIC TRANSMISSION OVERHAUL (2-9-5.0)
This course is an advanced study of transmission overhaul procedures, including proper overhaul procedures used to repair overdrive transmissions and transaxles.

BAF 101 PERSONAL FINANCE (3-0-3.0)
This course includes the practical applications of concepts and techniques used in managing personal finances. Major areas of study include financial planning, budgeting, credit use, housing, insurance, investments, and retirement planning.
Prerequisite(s): None

BAF 260 FINANCIAL MANAGEMENT (3-0-3.0)
This course is a study of financial analysis and planning. Topics include working capital management, capital budgeting, and cost of capital. Financial forecasting, operating and financial leverage will also be discussed.
Prerequisite(s): ACC 102 with a grade of “C” or better.

BCT 112 CONSTRUCTION PRINT READING (2-0-2.0)
This course is a study of residential and light commercial prints.

BIO 100 INTRODUCTORY BIOLOGY (4-0-4.0)
This is a course in general biology designed to introduce principles of biology. The emphasis in this course is on human physiology and the role that humans play in the biosphere.
(Non-Degree Credit)

*BIO 101 BIOLOGICAL SCIENCE I (3-3-4.0)
This college transfer course is the first of a sequence introducing biology. Topics include the scientific method, basic biochemistry, cell structure and function, cell physiology, cell reproduction and development, Mendelian genetics, population genetics, natural selection, evolution, and ecology.

*BIO 102 BIOLOGICAL SCIENCE II (3-3-4.0)
This college transfer course is a continuation of introductory biology which includes classification of organisms and structural and functional considerations of all kingdoms (particularly major phyla as well as viruses). Vertebrate animals and vascular plants are emphasized.
Prerequisite(s) BIO 101

*BIO 202 BOTANY (3-3-4.0)
This college transfer course is a study of cells, tissue, structure, growth, development, organization, energetics, and physiology of plants.
BIO

*BIO 205 ECOLOGY (3.0-3.0)
This college transfer course introduces basic principles of population biology, ecology, and environmental science as applied to the study of the interactions between human kind and the biosphere.

*BIO 210 ANATOMY & PHYSIOLOGY I (3-3-4.0)
This college transfer course is the first in a sequence of courses, including an intensive coverage of the body as an integrated whole. All body systems are studied.

*BIO 211 ANATOMY & PHYSIOLOGY II (3-3-4.0)
This college transfer course is a continuation of a sequence of courses, including intensive coverage of the body as an integrated whole. All body systems are studied.
Prerequisite(s): BIO 210

BIO 218 HEAD AND NECK ANATOMY (1-0-1.0)
The anatomy and physiology of the head and neck are studied with special emphasis on nerves, muscles, and their attachments, bone structures, and functions of the oral cavity.

*BIO 225 MICROBIOLOGY (3-3-4.0)
This college transfer course is a detailed study of microbiology as it relates to infection and the disease processes of the body. Topics include immunity, epidemiology, medically important microorganisms, and diagnostic procedures for identification.
Prerequisite(s): One college level laboratory science course.

BUS 121 BUSINESS LAW I (3-0-3.0)
This course is a study of legal procedures, law and society, classifications and systems of law, the tribunals administering justice and their actions, contracts, sales, transfer of titles, rights and duties of the parties, conditions, and warranties.
Prerequisite(s): None

CET 101 FUNDAMENTALS OF CIVIL ENGINEERING TECHNOLOGY (2-0-2.0)
This course is an introduction to the field of Civil Engineering Technology.

CET 102 FUNDAMENTALS OF SURVEYING (1-3-2.0)
This course includes the study of fundamental surveying theory, equipment, and procedures.

CET 105 SURVEYING I (2-3-3.0)
This course includes surveying theory and practice; care and use of instruments; traversing procedures; and computation of closure.
Prerequisite(s): MAT 102

CET 120 CONSTRUCTION MATERIALS (2-3-3.0)
This course includes a study of basic materials used in construction, including research of building product specifications.

CET 125 FUNDAMENTALS OF BUILDING CONSTRUCTION (2-0-2.0)
This course covers an overview of building construction and its related fundamental process and documentation procedures.
CET 127 BUILDING CONSTRUCTION & PRINT READING (4-0-4.0)
This course is a study of construction methods and print reading.

CET 130 CONTRACTS AND ENGINEERING LAW (3-0-3.0)
This course covers a study of basic engineering law; owner, engineer, contractor relations and responsibilities; contracts; bidding procedures; and specification interpretations.

CET 135 CONSTRUCTION CONTRACTS (2-0-2.0)
This course covers construction contracts; owner, engineer, contractor relations and responsibilities; contract performance requirements; bidding procedures; format; and interpretation of specifications.

CET 205 SURVEYING II (3-3-4.0)
This course includes electro-optical instrumentation techniques and complex computations used in surveying.
Prerequisite(s): CET 105

CET 216 SOIL MECHANICS (2-3-3.0)
This course covers soil types, their engineering properties, and techniques of field and laboratory identification and testing.

CET 218 HYDRAULICS (2-3-3.0)
This course includes the fundamentals of flow, control, disposal of water, and flow through open and closed conduits, orifices, and weirs.
Prerequisite(s): EGR 194

CET 220 CONCRETE & STEEL DESIGN (2-3-3.0)
This course covers the study of reinforced concrete and steel structural components.
Prerequisite(s): EGR 194

CET 230 CONSTRUCTION MANAGEMENT (3-0-3.0)
This course covers the study of management of construction firms, including one or more of the following areas: bidding process, contracts, job costs, labor costs, and labor relations.

CET 235 CONSTRUCTION METHODS & ESTIMATES (2-3-3.0)
This course covers basic construction techniques with emphasis on cost estimating.
Prerequisite(s): CET 120

CET 236 COMPUTERIZED CONSTRUCTION ESTIMATING (3-3-4.0)
This course covers the application of computerized construction estimating procedures.

CET 238 CONSTRUCTION PLANNING AND SCHEDULING (1-3-2.0)
This course covers the decision-making process involved in organizing the labor, materials, and equipment for a construction project.

CET 240 PAVEMENT DESIGN (1-3-2.0)
This course covers the study of the design and construction of various pavements, ranging from soil aggregate to the highest type portland cement and asphalt concrete pavements.
CET 246 ENVIRONMENTAL SYSTEMS TECHNOLOGY (2-3-3.0)
This course covers a study of the sources, treatment, collection and distribution of water and waste water.
Prerequisite(s): CET 218

CET 250 TRANSPORTATION ENGINEERING TECHNOLOGY (3-0-3.0)
This course covers a study of the design factors required in planning and construction transportation systems.

CET 251 HIGHWAY DESIGN (3-0-3.0)
This course covers a study of the design and construction of a highway.

CET 255 SENIOR PROJECT IN CIVIL ENGINEERING TECHNOLOGY (0-3-1.0)
This course is designed to permit the student to do investigation and/or advanced study in an area of specialization in civil engineering technology.

CHM 100 INTRODUCTORY CHEMISTRY (4-0-4.0)
This is an introductory course in general chemistry and principles of chemistry. Emphasis is placed on mathematical solutions and laboratory techniques.
(Non-degree credit)

CHM 105 GENERAL, ORGANIC AND BIOCHEMISTRY (3-3-4.0)
This course is a study of the fundamental principles of chemistry, including atomic and molecular structure, common substances and reactions, introduction to organic chemistry and biochemistry.

*CHM 110 COLLEGE CHEMISTRY I (3-3-4.0)
This is the first college transfer course in a sequence which includes the following topics: atomic and molecular structure, nomenclature and equations, properties, reactions and states of matter, stoichiometry, gas laws, solutions, and equilibria.
Prerequisite(s): MAT 102

*CHM 111 COLLEGE CHEMISTRY II (3-3-4.0)
This college transfer course is a continuation of the study of atomic and molecular structure, nomenclature and equations, properties, reactions and states of matter, stoichiometry, gas laws, solutions, and equilibria. Other topics include kinetics, thermodynamics, and electrochemistry.
Prerequisite(s): CHM 110

*CHM 211 ORGANIC CHEMISTRY I (3-3-4.0)
This college transfer course is the first in a sequence of courses that includes nomenclature, structure and properties, and reaction mechanisms of basic organic chemistry.
Prerequisite(s): CHM 111

*CHM 212 ORGANIC CHEMISTRY II (3-3-4.0)
This college transfer course is a continuation of basic organic chemistry. Topics include nomenclature, structure and properties, reaction mechanisms of basic organic chemistry, biochemistry, and spectroscopy.
Prerequisite(s): CHM 211
COL 103  COLLEGE SKILLS (3-0-3.0)
This course may include selected topics such as career planning, study skills, stress
management, tutoring, group guidance, and other subjects to facilitate student success.

CPT 101  INTRODUCTION TO COMPUTERS (3-0-3.0)
This course covers basic computer history, theory and applications, including word
processing, spreadsheets, data bases, and the operating system.
Prerequisite(s): None

CPT 107  FILE ENTRY OPERATIONS (3-0-3.0)
This course includes a study of data entry and word processing
using a computer system. Exercises stress speed, accuracy, and familiarity with common
office forms.
Prerequisite(s): None

CPT 114  COMPUTERS & PROGRAMMING (3-0-3.0)
This course introduces computer concepts and programming. Topics include basic
concepts of computer architecture, files, memory, and input/output devices. Programming is done in a modern high-level procedural language.
Prerequisite(s): None

CPT 115  COBOL PROGRAMMING I (2-3-3.0)
This course introduces the nature and use of the common business oriented language —
COBOL. COBOL will be taught on an AS400 computer.
Prerequisite(s): CPT 168 with a grade of “C” or better.

CPT 121  RPG PROGRAMMING I (2-3-3.0)
This course introduces the RPG programming language, emphasizing the designing,
coding, testing, and debugging of RPG programs. RPG III will be taught on an AS400
computer.
Prerequisite(s): CPT 168 with a grade of “C” or better.

CPT 151  MACHINE OPERATIONS (3-0-3.0)
This course covers the major functions of the operations department of a computer center.
Students learn the operating system and operation of an AS400 minicomputer.

CPT 168  PROGRAMMING LOGIC AND DESIGN (3-0-3.0)
This course examines problem-solving techniques applied to program design. Topics
include a variety of documentation techniques as means of solution presentation.
Prerequisite(s): CPT 114 and CPT 264 with a grade of “C” or better.

CPT 170  MICROCOMPUTER APPLICATIONS (3-0-3.0)
This course introduces microcomputer applications software, including word processing,
data bases, spreadsheets, graphs, and their integration.
Prerequisite(s): CPT 101 with a grade of “C” or better.
CPT 172 MICROCOMPUTER DATA BASE (3-0-3.0)
This course introduces microcomputer data base concepts, including generating reports from data bases, creating, maintaining, and modifying data bases.
Prerequisite(s): CPT 114 or CPT 101 with a grade of “C” or better.

CPT 174 MICROCOMPUTER SPREADSHEETS (3-0-3.0)
This course introduces the use of spreadsheet software on the microcomputer. Topics include creating, editing, using formulas, using functions, and producing graphs.
Prerequisite(s): CPT 114 or CPT 101 with a grade of “C” or better.

CPT 179 MICROCOMPUTER WORD PROCESSING (3-0-3.0)
This course introduces microcomputer word processing. Topics include creating, editing, formatting, and printing documents.
Prerequisite(s): CPT 101 or CPT 114 with a grade of “C” or better.

CPT 215 COBOL PROGRAMMING II (2-3-3.0)
This course emphasizes file maintenance and tables using advanced concepts in COBOL. COBOL will be taught on the AS400 computer.
Prerequisite(s): CPT 115 with a grade of “C” or better.

CPT 221 RPG PROGRAMMING II (2-3-3.0)
This course introduces the advanced concepts of the RPG programming language. RPG III will be taught on the AS400 computer.
Prerequisite(s): CPT 121 with a grade of “C” or better.

CPT 242 DATABASE (3-0-3.0)
This course introduces data base models and the fundamentals of data base design. Topics include data base structure, data base processing, and application programs which access a data base. A microcomputer data base package will be used.
Prerequisite(s): CPT 244 with a grade of “C” or better.

CPT 244 DATA STRUCTURES (3-0-3.0)
This course examines data structures widely used in programming. Topics include linked lists, stacks, queues, trees, and sorting and searching techniques.
Prerequisite(s): CPT 114 and CPT 264 with a grade of “C” or better.

CPT 255 OPERATING SYSTEM FUNDAMENTALS (2-3-3.0)
This course examines popular operating systems of several different types of computers. Topics include command languages, utility programs, and screen design.
Prerequisite(s): CPT 114 with a grade of “C” or better.

CPT 257 OPERATING SYSTEMS (3-0-3.0)
This course examines the theory of operating systems and how the operating system theory is implemented in current operating systems.
Prerequisite(s): CPT 114 with a grade of “C” or better.

CPT 264 SYSTEMS AND PROCEDURES (3-0-3.0)
This course covers the techniques of system analysis, design, development, and implementation.
Prerequisite(s): None
DAT

CPT 270 ADVANCED MICROCOMPUTER APPLICATIONS (3-0-3.0)
This course emphasizes the integration of popular microcomputer software packages using advanced concepts in microcomputer applications software.
Prerequisite(s): CPT 174 and CPT 172 with a grade of “C” or better.

CWE 101 COOPERATIVE WORK EXPERIENCE PREPARATION (0-0-1.0)
This course includes preparation for cooperative work experience.

CWE 112 COOPERATIVE WORK EXPERIENCE I (0-0-2.0)
This course includes cooperative work experience in an approved setting.

CWE 113 COOPERATIVE WORK EXPERIENCE I (0-0-3.0)
This course includes cooperative work experience in an approved setting.

CWE 122 COOPERATIVE WORK EXPERIENCE II (0-0-2.0)
This course includes cooperative work experience in an approved setting.

CWE 123 COOPERATIVE WORK EXPERIENCE II (0-0-3.0)
This course includes cooperative work experience in an approved setting.

CWE 131 COOPERATIVE WORK EXPERIENCE III (0-0-1.0)
This course includes cooperative work experience in an approved setting.

CWE 132 COOPERATIVE WORK EXPERIENCE III (0-0-2.0)
This course includes cooperative work experience in an approved setting.

CWE 133 COOPERATIVE WORK EXPERIENCE III (0-0-3.0)
This course includes cooperative work experience in an approved setting.

CWE 212 COOPERATIVE WORK EXPERIENCE IV (0-0-2.0)
This course includes cooperative work experience in an approved setting.

CWE 213 COOPERATIVE WORK EXPERIENCE IV (0-0-3.0)
This course includes cooperative work experience in an approved setting.

CWE 222 COOPERATIVE WORK EXPERIENCE IV (-0-2.0)
This course includes cooperative work experience in an approved setting.

CWE 231 COOPERATIVE WORK EXPERIENCE VI (0-0-1.0)
This course includes cooperative work experience in an approved setting.

DAT 112 INTEGRATED HUMAN SCIENCES (4-0-4.0)
This course provides a basic study of human anatomy, physiology, and microbiology as related to dental science and the practice of dental assisting.

DAT 113 DENTAL MATERIALS (2-6-4.0)
This course is a study of physical and chemical properties of matter and identification, characteristics, and manipulation of dental materials.
DAT 115 ETHICS & PROFESSIONALISM (1-0-1.0)
This course introduces a cursory history of dental assisting, professional associations, scope of service in dentistry, and ethical, legal and professional considerations. The state dental practice act is reviewed.

DAT 118 DENTAL MORPHOLOGY (2-0-2.0)
This course emphasizes the development, eruption, and individual characteristics of each tooth and surrounding structures.

DAT 121 DENTAL HEALTH EDUCATION (1-3-2.0)
This course defines the responsibilities of the dental assistant in individual and community dental health education with emphasis on the etiology of dental disease, methods for prevention, and principles of nutrition in relationship to oral health and preventive dentistry.
Prerequisite(s): DAT 118

DAT 122 DENTAL OFFICE MANAGEMENT (1-3-2.0)
This course provides a study of the business aspect of a dental office.
Prerequisite(s): DAT 154, DAT 124

DAT 123 ORAL MEDICINE/ORAL BIOLOGY (3-0-3.0)
This course presents a basic study of oral pathology, pharmacology, nutrition, and common emergencies as related to the role of the dental assistant.

DAT 124 EXPANDED FUNCTIONS/SPECIALTIES (0-3-1.0)
This course offers practice in performing the expanded clinical procedures designated by the South Carolina State Board of Dentistry for Dental Assistants.
Prerequisite(s): DAT 118, DAT 154

DAT 127 DENTAL RADIOGRAPHY (2-6-4.0)
This course provides the fundamental background and theory for the safe and effective use of X-radiation in dentistry. It encompasses the history of X-rays, production and uses of radiation, radiographic film, exposure factors, interpretation of radiographs and radiation hygiene.
Prerequisite(s): DAT 112, DAT 118, DAT 154

DAT 154 CLINICAL PROCEDURES (2-6-4.0)
This course includes preparation to assist a dentist efficiently in four-handed dentistry. Emphasis is on the names and functions of all dental instruments, the principles involved in their use, and the assistants' role in dental instrumentation.

DAT 174 OFFICE ROTATIONS (0-12-4.0)
This is an introductory course to a general office with emphasis placed on chairside assisting and office management.
Prerequisite(s): All DAT courses first semester

DAT 177 DENTAL OFFICE EXPERIENCE (1-32-7.0)
This course consists of practice in the dental office or clinic with rotation of assignments to encompass experiences in office management and clinical experience in all areas of dentistry.
Prerequisite(s): All DAT courses first and second semesters
DEVELOPMENTAL ENGLISH
Intended for students who need assistance in basic writing. Based on assessment of student needs, instruction includes writing short compositions in which students demonstrate control of mechanics, word usage, and sentence structure.
ENG 001-009 (0-10-5.0)
ENG 010-019 (0- 1-0.5)
ENG 020-029 (0- 2-1.0)
ENG 030-039 (0- 3-1.5)
ENG 040-049 (0- 4-2.0)
ENG 050-059 (0- 5-2.5)
ENG 060-069 (0- 6-3.0)
ENG 070-079 (0- 7-3.5)
ENG 080-089 (0- 8-4.0)
ENG 090-099 (0- 9-4.5)

DEVELOPMENTAL MATHEMATICS
Intended for students who need assistance in basic arithmetic skills. Based on assessment of student needs, instruction includes performing the four arithmetic operations with whole numbers, fractions, decimals, percents, and an introduction to measurement, algebraic, and geometric concepts. Word problem skills are emphasized.
MAT 001-009 (0-10-5.0)
MAT 010-019 (0- 1-0.5)
MAT 020-029 (0- 2-1.0)
MAT 030-039 (0- 3-1.5)
MAT 040-049 (0- 4-2.0)
MAT 050-059 (0- 5-2.5)
MAT 060-069 (0- 6-3.0)
MAT 070-079 (0- 7-3.5)
MAT 080-089 (0- 8-4.0)
MAT 090-099 (0- 9-4.5)

DEVELOPMENTAL READING
Intended for students who need improvement in basic reading skills. Based on assessment of student needs, instruction includes vocabulary, comprehension, use of reference materials, and an introduction to analysis of literature.
RDG 001-009 (0-10-5.0)
RDG 010-019 (0- 1-0.5)
RDG 020-029 (0- 2-1.0)
RDG 030-039 (0- 3-1.5)
RDG 040-049 (0- 4-2.0)
RDG 050-059 (0- 5-2.5)
RDG 060-069 (0- 6-3.0)
RDG 070-079 (0- 7-3.5)
RDG 080-089 (0- 8-4.0)
RDG 090-099 (0- 9-4.5)
ECD 101 INTRODUCTION TO EARLY CHILDHOOD (3-0-3.0)
This course includes an overview of the history, theories, and curriculum models of early education. Emphasis is on current trends/issues, with a review of state/national regulations. Characteristics of quality programs and professional teachers are explored in the course.

ECD 102 GROWTH & DEVELOPMENT I (3-0-3.0)
This course is an extensive study of philosophies and theories of growth and development of infants/toddlers. Focus is on “total” development of the child, with emphasis on physical, social, emotional, cognitive, and nutritional areas. Developmental tasks and appropriate activities are explored in the course.

ECD 103 GROWTH & DEVELOPMENT II (3-0-3.0)
This course is an in-depth study of preschool children growing and developing in today’s world. Focus is on “total” development of the child with emphasis on physical, social, emotional, cognitive, and nutritional areas of development. Developmental tasks and appropriate activities are explored in the course.

ECD 105 GUIDANCE-CLASSROOM MANAGEMENT (3-0-3.0)
This course is an overview of developmentally appropriate, effective guidance and classroom management techniques for the teacher of young children. A positive proactive approach is stressed in the course.

ECD 107 EXCEPTIONAL CHILDREN (2-3-3.0)
This course includes an overview of special needs children and their families. Emphasis is on prevalence of disorders, treatment modalities, community resources serving exceptional children, the teacher’s role in mainstreaming and early identification, and on federal legislation affecting exceptional children.

ECD 131 LANGUAGE ARTS (3-0-3.0)
This course is a study of methods and materials in age-appropriate language experiences. Opportunities are provided to develop listening, speaking, prereading and prewriting skills through planning, implementation, and evaluation of media, methods, techniques and equipment. Methods of selection, evaluation, and presentation of children’s literature are included.

ECD 132 CREATIVE EXPERIENCES (1-6-3.0)
In this course the importance of creativity and independence in creative expression are stressed. A variety of age-appropriate media, methods, techniques and equipment are utilized. Students plan, implement, and evaluate instructional activities.

ECD 133 SCIENCE & MATH CONCEPTS (3-0-3.0)
This course includes an overview of pre-number and science concepts developmentally-appropriate for young children. Emphasis is on the planning, implementation, and evaluation of developmentally-appropriate activities utilizing a variety of methods and materials.
ECD 135 HEALTH, SAFETY AND NUTRITION (2-3-3.0)
This course covers a review of health/safety practices recommended for child care and includes information on common diseases and health problems. Certification preparation is provided in pediatric safety, CPR, and First Aid. Guidelines and information on nutrition and developmentally-appropriate activities are also studied in the course.

ECD 137 METHODS AND MATERIALS (1-6-3.0)
This course includes an overview of developmentally-appropriate methods and materials for planning, implementing, and evaluating environments. Emphasis is on integrating divergent activities in each curriculum area.

ECD 143 SUPERVISED FIELD EXPERIENCE I (0-9-3.0)
This course includes emphasis on planning, implementing, and evaluating scheduled programs, age appropriate methods, materials, activities, and environments of early childhood principles and practices.
Prerequisite(s): ECD 101,102,103,105,107,131,132,133,135,137

ECD 144 SUPERVISED FIELD EXPERIENCE II (0-9-3.0)
This course includes emphasis on planning, implementing, and evaluating scheduled programs, age-appropriate methods, materials, activities, and environments in all areas of responsibility in programs dealing with young children.
Prerequisite(s): ECD 143

ECO 100 CONSUMER ECONOMICS (2-0-2.0)
This course is a study of consumer decision-making and personal money management. Topics may include budgeting, investing, and solving problems encountered in the market place.

ECO 101 BASIC ECONOMICS (3-0-3.0)
This course is a study of comparative economic systems, forms of business organizations, business operations, and wage and price determination.

ECO 105 INTRODUCTION TO ECONOMIC PRINCIPLES (3-0-3.0)
This course is a study of basic macro/micro economic concepts, including economic problems and decisions. Topics include the free enterprise and other economic systems.

ECO 201 ECONOMIC CONCEPTS (3-0-3.0)
This course is a study of macro/micro-economic concepts and selected economic problems.

*ECO 210 MACROECONOMICS (3-0-3.0)
This college transfer course includes the study of fundamental principles and policies of a modern economy to include markets and prices, national income accounting, business cycles, employment theory and fiscal policy, banking and monetary controls, and the government's role in economic decisions and growth.

*ECO 211 MICROECONOMICS (3-0-3.0)
This college transfer course includes the study of the behavior of households and firms, including supply and demand, elasticity, price/input in different market structures, pricing of resources, regulations, and comparative advantage and trade.
ECO 215 CURRENT ECONOMIC ISSUES (3-0-3.0)
This course provides an analysis of the nature, causes, and implications of current economic issues and problems as well as policy alternatives.

EEM 107 INDUSTRIAL COMPUTER TECHNIQUES (1-3-2.0)
This course is an introduction to microcomputers. Topics include definitions of computer types, hardware and software structure, movement of data, and application of microcomputers.

EEM 117 AC/DC CIRCUITS I (4-0-4.0)
This course is a study of direct and alternating theory, Ohm's Law, series, parallel, and combination circuits. Circuits are constructed and tested.
Co-requisite: EEM 118

EEM 118 AC/DC CIRCUITS II (1-9-4.0)
This course is a continuation of the study of direct and alternating current theory to include circuit analysis using mathematics and verified with electrical measurements.
Co-requisite: EEM 117

EEM 121 ELECTRICAL MEASUREMENTS (3-0-3.0) (Elective)
This course covers the basic principles of electrical measuring instruments and how they are used in industries.

EEM 123 SCHEMATICS ANALYSIS (3-0-3.0)
This course covers the interpretation of electrical and electronic schematics, including the mathematical analysis of these circuits.

EEM 125 ELECTRONIC CIRCUITS (0-6-2.0)
This course covers the basic circuits encountered in industrial equipment. Both theoretical and practical experiences are included.

EEM 131 SOLID STATE DEVICES (3-3-4.0)
This course is a study of semiconductor theory and common solid state devices. Circuits are constructed and tested.

EEM 140 NATIONAL ELECTRICAL CODE (3-0-3.0) (Elective)
This course is a study of the national electrical code and is based on the latest codes as published by the National Fire Protection Association (NFPA).

EEM 151 MOTOR CONTROLS I (3-3-4.0)
This course is an introduction to motor controls, including a study of the various control devices and wiring used in industrial processes.

EEM 160 INDUSTRIAL INSTRUMENTATION (3-0-3.0) (Elective)
This course covers the basic principles of instrumentation, including a discussion of various instruments employed in industrial applications.

EEM 162 INTRODUCTION TO PROCESS CONTROL (3-0-3.0)
This course is an introduction to control systems theory and process control characteristics.
EEM

EEM 211 AC MACHINES (2-3-3.0)
This course is a study of application, operation, and construction of AC machines.

EEM 221 DC/AC DRIVES (1-6-3.0)
This course covers the principles of operation and application of DC drives and AC drives.

EEM 231 DIGITAL CIRCUITS I (1-6-3.0)
This course is a study of the logic elements, mathematics, components, and circuits utilized in digital equipment. Emphasis is placed on the function and operation of digital integrated circuit devices.

EEM 241 MICROPROCESSORS I (3-0-3.0)
This course is an introduction to basic microprocessor concepts such as microprocessor structure, numbering systems, computer arithmetic, programming, architecture, and basic interfacing techniques.
Co-requisite: EEM 242

EEM 242 MICROPROCESSORS II (2-3-3.0)
This course is a continuation of the study of microprocessor programming and interfacing techniques.
Co-requisite: EEM 241

EEM 251 PROGRAMMABLE CONTROLLERS (3-0-3.0)
This course is an introduction to programmable control systems with emphasis on basic programming techniques. A variety of input/output devices and their applications are covered.

EEM 252 PROGRAMMABLE CONTROLLERS APPLICATIONS (1-6-3.0)
This course covers the application of programmable controller theories and operation procedures. Topics such as interfacing data manipulation and report generation are covered. Programmable controller projects are constructed, operated, and tested.

EEM 275 TECHNICAL TROUBLESHOOTING (3-0-3.0)
This course consists of a systematic approach to troubleshooting. Techniques used to analyze proper circuit operation and malfunctions are studied.
Co-requisite: EEM 276

EEM 276 APPLIED TROUBLESHOOTING (1-6-3.0)
This course is an application of electronic troubleshooting methods. The student analyzes, troubleshoots, and repairs circuits.

EET 101 BASIC ELECTRONICS (1-3-2.0)
This course is a survey of electrical and electronic circuits and measurement methods for non-EET students. Circuits are constructed and tested.

EET 111 DC CIRCUITS (3-3-4.0)
This course is a study of resistance, voltage, current, power, and energy in series, parallel, and series-parallel circuits using Ohm's law, Kirchhoff's laws, and circuit theorems. Circuits are analyzed using mathematics and verified using electrical instruments.
Corequisite(s): MAT 178
EET 112 AC CIRCUITS (3-3-4.0)
This course is a study of capacitive and inductive reactance and impedance in series, parallel and series-parallel circuits. It also includes power, power-factors, resonance and transformers. Circuits are analyzed using mathematics and verified using electrical instruments.
Prerequisite(s): EET 111

EET 113 ELECTRICAL CIRCUITS I (3-3-4.0)
This course is a study of dc and ac covering resistance and impedance in series, parallel and series-parallel circuits using Ohm's Law, Kirchhoff's Laws and basic circuit theorems. Circuits are analyzed using mathematics and verified using electrical instruments.

EET 114 ELECTRIC CIRCUITS II (3-3-4.0)
This course is a continuation of Electric Circuits I to include advanced network theorems. Circuits are analyzed using mathematics and verified using electrical instruments.
Prerequisite: EET 113

EET 131 ACTIVE DEVICES (3-3-4.0)
This course is a study of semiconductor theory and principles, diodes and diode circuits, transistors, transistor circuits, and other components. Circuits are modeled, constructed, and tested.
Prerequisite(s): EET 112

EET 141 ELECTRONIC CIRCUITS (3-3-4.0)
This course is a study of electronic circuits using discrete and integrated devices, including analysis, construction, testing and troubleshooting.
Prerequisite(s): EET 131

EET 145 DIGITAL CIRCUITS (3-3-4.0)
This course is a study of number systems, basic logic gates, boolean algebra, logic optimization, flip-flops, counters and registers. Circuits are modeled, constructed, and tested.

EET 220 ANALOG INTEGRATED CIRCUITS (2-3-3.0)
This course includes analysis, application, and experiments involving such integrated circuits as op-amps, timers and ic regulators. Circuits are modeled, constructed, and tested.
Prerequisite(s): EET 131

EET 227 ELECTRICAL MACHINERY (2-3-3.0)
This course is a study of AC and DC electro-mechanical energy conversion devices, theory, applications and control. Devices are tested and verified using electrical instruments.
Prerequisite(s): EET 112

EET 231 INDUSTRIAL ELECTRONICS (3-3-4.0)
This course is a survey of topics related to industrial application of electronic devices and circuits. The course covers switches, dc and ac motor controls, sensors and transducers, open and closed loop control circuits and voltage converting interfaces. Circuits are constructed and tested.
Prerequisite(s): EET 131
EGR

EET 235 PROGRAMMABLE CONTROLLERS (2-3-3.0)
This course is a study of relay logic, ladder diagrams, theory of operation, and applications. Loading ladder diagrams, debugging, and trouble-shooting techniques are applied to programmable controllers.
Prerequisite(s): EET 112

EET 241 ELECTRONIC COMMUNICATION (3-3-4.0)
This course is a study of the theory of transmitters and receivers, with an emphasis on the receivers, mixers, IF amplifiers and detectors. Some basic FCC rules and regulations are also covered.
Prerequisite(s): EET 131

EET 251 MICROPROCESSOR FUNDAMENTALS (2-6-4.0)
This course is a study of binary numbers; microprocessor operation, architecture, instruction sets, and interfacing with operating systems; and applications in control, data acquisition, and data reduction and analysis. Programs are written and tested.
Prerequisite(s): EET 145

EET 255 ADVANCED MICROPROCESSORS (2-3-3.0)
This course is a study of advanced microprocessor, controllers, and hardware/software interfacing techniques for controlling external devices. Hardware is designed and constructed, and control programs are written and tested.
Prerequisite(s): EET 251

EET 261 ELECTRONIC TROUBLESHOOTING (1-3-2.0)
This course is a study of the systematic techniques for troubleshooting electronic equipment. Logical procedures are emphasized rather than specific circuits. Students are required to troubleshoot and repair selected equipment.
Prerequisite(s): EET 241

EET 271 CIRCUIT ASSEMBLY TECHNIQUES (1-3-2.0)
This course is a study of techniques for hand assembly of electronic circuits, including component selection and identification, board layout, soldering and desoldering techniques, and prototyping and testing. Circuits are modeled, constructed, and tested.
Prerequisite(s): EET 131

EET 274 SELECTED TOPICS IN EET (3-0-3.0)
This course is a study of current topics related to EET. Technical aspects of practical applications are discussed.

EGR 101 INTRODUCTION TO ENGINEERING TECHNOLOGY (0-3-1.0)
This course is an introduction to computers and reporting formats.

EGR 112 ENGINEERING PROGRAMMING (2-3-3.0)
This course covers interactive computing and the basic concepts of programming.
Corequisite(s): MAT 178

EGR 120 ENGINEERING COMPUTER APPLICATIONS (2-3-3.0)
This course includes the utilization of applications software to solve engineering technology problems.
EGR 170 ENGINEERING MATERIALS (2-3-3.0)
This course is a study of the properties, material behaviors, and applications.
Prerequisite(s): Permission of Instructor

EGR 175 MANUFACTURING PROCESSES (3-0-3.0)
This course includes the processes, alternatives, and operations in the manufacturing environment.

EGR 190 STATICS (3-0-3.0)
This course is a study of forces and the effect of forces acting on bodies in equilibrium without motion.
Prerequisite(s): PHY 201

EGR 194 STATICS AND STRENGTH OF MATERIALS (3-3-4.0)
This course covers external and internal forces in structures and/or machines, including conditions of equilibrium, systems of force, moments of inertia and friction. It also covers the stress/strain relationships in materials.
Prerequisite(s): MAT 102

EGR 225 ENGINEERING COST ANALYSIS (2-0-2.0)
This course covers engineering economic analysis techniques, including equivalent uniform annual cost analysis, present worth analysis, and rate of return analysis.

EGR 270 INTRODUCTION TO ENGINEERING (3-0-3.0)
This course covers the applications of computers in engineering practices, including the use of an appropriate operating system, programming in a high level language, spreadsheet and word processing applications.

EGT 101 BASIC TECHNICAL DRAWING (0-6-2.0)
This course covers the basics of drafting, emphasizing line quality, lettering, and basic drafting conventions.

EGT 102 TECHNICAL DRAWING (0-6-2.0)
This course covers the application of drawing equipment and drawing techniques in the preparation of multiview orthographic, pictorial, working and/or assembly drawings. Basic methods for dimensioning, tolerancing, sectioning and fit of mating parts as performed in industrial fabrication and assembly practices are included.
Prerequisite(s): EGT 101

EGT 104 PRINT READING (3-0-3.0)
This course covers the interpretation of industrial drawings.

EGT 106 PRINT READING AND SKETCHING (3-0-3.0)
This course covers the interpretation of basic engineering drawings and sketching techniques for making multi-view pictorial representations.

EGT 108 ADVANCED PRINT READING AND SKETCHING (1-3-2.0)
This course is a study of the interpretation of complicated drawings. Drafting and sketching techniques are included.
Prerequisite(s): EGT 104
EGT 110 ENGINEERING GRAPHICS I (2-6-4.0)
This is an introductory course in engineering graphics science which includes beginning drawing techniques and development of skills to produce basic technical drawings.

EGT 115 ENGINEERING GRAPHICS II (2-6-4.0)
This course in engineering graphics science includes additional drawing techniques for industrial applications.
Prerequisite(s): EGT 110

EGT 125 DESCRIPTIVE GEOMETRY (0-6-2.0)
This course is designed to aid in solving drafting problems associated with single or intersecting surfaces which are not necessarily placed in the principal planes in space.
Prerequisite(s): EGT 115 or equivalent

EGT 151 INTRODUCTION TO CAD (2-3-3.0)
This course covers the operation of a computer aided drafting system. The course includes interaction with a CAD station to produce technical drawings.
Prerequisite(s): EGT 101 or EGT 110

EGT 155 INTERMEDIATE CAD (1-3-2.0)
This course covers advanced computer aided drafting skills, including topics such as creating isometrics and script files and customizing menus, text fonts, and hatch fonts to produce advanced drawings.
Prerequisite(s): EGT 151

EGT 165 INTRODUCTION TO CAD/CAM (1-3-2.0)
This course covers the basic principles of CNC machine operation, fixturing required to clamp parts in the machine, and basic competencies in CNC programming.
Prerequisite(s): EGT 102, MET 101

EGT 172 ELECTRONIC DRAFTING (2-0-2.0)
This course provides familiarization with a system to create electronic schematics and wiring diagrams.

EGT 210 ENGINEERING GRAPHICS III (2-6-4.0)
This advanced course in engineering graphics science covers the production of technical working drawings.
Prerequisite(s): EGT 151, EGT 115

EGT 215 MECHANICAL DRAWING APPLICATIONS (2-6-4.0)
This advanced drawing course covers industrial applications.
Prerequisite(s): EGT 155, EGT 210

EGT 220 STRUCTURAL AND PIPING APPLICATIONS (3-3-4.0)
This advanced drawing course covers structural steel and process piping applications.
Prerequisite(s): EGT 151 or AET 111
ENG 100 INTRODUCTION TO COMPOSITION (3-0-3.0)
This course is a study of basic writing and different modes of composition and may include a review of usage. (Non-degree credit)
Prerequisite: ENG 150 with a grade of "C" or higher or placement.

*ENG 101 ENGLISH COMPOSITION I (3-0-3.0)
This is a (college transfer) course in which the following topics are presented: a study of composition in conjunction with appropriate literary selections, with frequent theme assignments to reinforce effective writing. A review of standard usage and the basic techniques of research are also presented. A grade of "C" or higher is required for credit.
Prerequisite(s): ENG 100 or placement.

*ENG 102 ENGLISH COMPOSITION II (3-0-3.0)
This is a (college transfer) course in which the following topics are presented: development of writing skills through logical organization, effective style, literary analysis, and research. An introduction to literary genre is also included.
Prerequisite(s) ENG 101 with a grade of "C" or higher.

ENG 150 BASIC COMMUNICATIONS (3-0-3.0)
This course develops practical oral and written communication skills. (Non-degree credit)
Prerequisite: Transitional English or placement.

ENG 155 COMMUNICATIONS I (3-0-3.0)
This course introduces the principles of expository writing and public speaking through practice and development of communication skills.

ENG 160 TECHNICAL COMMUNICATIONS (3-0-3.0)
This course is a study of various technical communications such as definitions, processes, instructions, descriptions, and technical reports.

ENG 165 PROFESSIONAL COMMUNICATIONS (3-0-3.0)
This course develops practical written and oral professional communication skills.

ENG 170 BUSINESS COMMUNICATIONS (3-0-3.0)
This course presents a comprehensive survey of business English usage and communication skills.

ENG 175 PROOFREADING AND EDITING (3-0-3.0)
This course presents intensive application of advanced proofreading and editing skills, including usage and punctuation.

*ENG 201 AMERICAN LITERATURE I (3-0-3.0)
This college transfer course is a study of American literature from the Colonial Period to the Civil War.
Prerequisite(s): ENG 102 with a grade of "C" or higher.

*ENG 202 AMERICAN LITERATURE II (3-0-3.0)
This college transfer course is a study of American literature from the Civil War to the present.
Prerequisite(s): ENG 102 with a grade of "C" or higher.
**ENG 205 ENGLISH LITERATURE I (3-0-3.0)**
This is a college transfer course in which the following topics are presented: the study of English literature from the Old English Period to the Romantic Period with emphasis on major writers and periods. 
Prerequisite(s): ENG 102 with a grade of “C” or higher.

**ENG 206 ENGLISH LITERATURE II (3-0-3.0)**
This is a college transfer course in which the following topics are presented: the study of English literature from the Romantic Period to the present with emphasis on major writers and periods.
Prerequisite(s): ENG 102 with a grade of “C” or higher.

**ENG 208 WORLD LITERATURE I (3-0-3.0)**
This college transfer course is a study of masterpieces of world literature in translation from the ancient world to the sixteenth century.
Prerequisite(s): ENG 102 with a grade of “C” or higher.

**ENG 209 WORLD LITERATURE II (3-0-3.0)**
This college transfer course is a study of masterpieces of world literature in translation from the seventeenth century to the present.
Prerequisite(s): ENG 102 with a grade of “C” or higher.

**ENG 214 FICTION (3-0-3.0)**
This college transfer course is a study of fiction from several cultures. Emphasis is on the nature of the genre and appropriate reading strategies.
Prerequisite(s): ENG 102 with a grade of “C” or higher.

**ENG 218 DRAMA (3-0-3.0)**
This college transfer course is a study of drama from several cultures. Emphasis is on the nature of the genre and appropriate reading strategies.
Prerequisite(s): ENG 102 with a grade of “C” or higher.

**ENG 238 CREATIVE WRITING (3-0-3.0)**
This college transfer course presents an introduction to creative writing in various genres.
Prerequisite(s): ENG 102 with a grade of “C” or higher.

**ENG 242 VOCABULARY AND LANGUAGE (3-0-3.0)**
This course covers native and borrowed sources of the English vocabulary with attention to language relationships, changes in the pronunciations and meanings of words, and history and linguistic functions of dictionaries.

**ENG 260 ADV TECH COMMUNICATIONS (3-0-3.0)**
This course develops skills in research techniques and increases proficiency in technical communications.
Prerequisite(s): ENG 160 or ENG 101
ENGLISH AS A SECOND LANGUAGE
English as a second language is intended for non-native English speaking students who need assistance in developing and improving listening and speaking skills, written communication skills, and basic English grammar.

ESL 001-009 (0-10-5.0)
ESL 010-019 (0-1-0.5)
ESL 020-029 (0-2-1.0)
ESL 030-039 (0-3-1.5)
ESL 040-049 (0-4-2.0)
ESL 050-059 (0-5-2.5)
ESL 060-069 (0-6-3.0)
ESL 070-079 (0-7-3.5)
ESL 080-089 (0-8-4.0)
ESL 090-099 (0-9-4.5)

*FRE 101 ELEMENTARY FRENCH I (3-1-4.0)
This college transfer course consists of a study of the four basic language skills: listening, speaking, reading and writing, including an introduction to French culture.

*FRE 102 ELEMENTARY FRENCH II (3-1-4.0)
This college transfer course continues the development of basic language skills and includes a study of French culture.
Prerequisite(s): FRE 101

*GER 101 ELEMENTARY GERMAN I (3-1-4.0)
This college transfer course is a study of the four basic language skills: listening, speaking, reading, and writing. The course will include an introduction to German culture.

*GER 102 ELEMENTARY GERMAN II (3-1-4.0)
This college transfer course continues the development of the four basic language skills and the study of German culture.
Prerequisite(s): GER 101

*HIS 101 WESTERN CIVILIZATION TO 1689 (3-0-3.0)
This college transfer course is a survey of Western Civilization from ancient times to 1689, including the major political, social, economic, and intellectual factors shaping western cultural tradition.

*HIS 102 WESTERN CIVILIZATION POST 1689 (3-0-3.0)
This college transfer course is a survey of Western Civilization from 1689 to the present, including major political, social, economic, and intellectual factors which shape the modern western world.
Prerequisite(s): none

*HIS 201 AMERICAN HISTORY: DISCOVERY TO 1877 (3-0-3.0)
This college transfer course is a survey of U.S. History from discovery to 1877. This course includes political, social, economic, and intellectual developments during this period.
*HIS 202  AMERICAN HISTORY: 1877 TO PRESENT (3-0-3.0)
This college transfer course is a survey of U.S. History from 1877 to the present. This course includes political, social, economic, and intellectual developments during this period.
Prerequisite(s): None

HRT 101  INTRODUCTION TO HORTICULTURE (3-0-3.0)
This course covers the basic principles of horticulture as it relates to commercial production. It includes a survey of the important areas of horticulture, including nursery production and sales, greenhouse operations, landscaping, turf, fruits, and vegetables.

HRT 102  LANDSCAPE DESIGN (3-3-4.0)
This course is a study of landscape design principles and the application of landscape drafting techniques and plant selection to produce a finished landscape plan.
Prerequisite(s): HRT 117 and HRT 105

HRT 104  LANDSCAPE DESIGN & IMPLEMENTATION (3-0-3.0)
This course is a study of landscape design and drafting as well as landscape installation techniques.

HRT 105  LANDSCAPE PLANT MATERIALS (3-3-4.0)
This course is a study of plant materials that are used in the southeastern landscaping and nursery trade. Identification of plants by common and scientific nomenclature, characteristics, culture, and use are included.

HRT 108  ANNUALS AND PERENNIALS (2-0-2.0)
This course is a survey of herbaceous plants, both annual and perennial, which can be grown in local gardens. Emphasis is on form, texture, size, blooming season, color, and culture.

HRT 110  PLANT FORM & FUNCTION (3-3-4.0)
This course is a study of morphology, anatomy, and physiology of higher plants. Emphasis is on plant structure, functions of plant parts, plant processes, plant growth and development, and plant inheritance.

HRT 113  PLANT MATERIALS (3-0-3.0)
This course is a study of herbaceous and woody plant materials used in the landscaping and nursery trade.

HRT 117  DESIGN W/HERBACEOUS PLANTS (3-0-3.0)
This course is a study of soft-stemmed plant materials. Emphasis is on habit of growth, size, period of bloom, color, and cultural requirements of annuals and perennials. Also provided is an introduction to design principles and landscape drafting.

HRT 121  COMMERCIAL IRRIGATION (3-0-3.0)
This course examines the use of irrigation in the landscape industry with emphasis on design, equipment suitability, water application procedures, and construction. Design projects and job bidding are also included.
HRT 125 SOILS (3-3-4.0)
This course is a study of soils and plant nutrition. Emphasis is on physical and chemical properties, water, organic matter, and life of soils. Materials and methods for supplying nutrients to horticulture plants are also included.

HRT 139 PLANT PROPAGATION (2-3-3.0)
This course is a study of the fundamental principles and techniques involved in plant propagation.

HRT 141 HORTICULTURE PEST CONTROL (3-3-4.0)
This course includes a study of the identification and control of insects, diseases, and weeds that are pests of horticultural plants.

HRT 144 PLANT PESTS (3-0-3.0)
This course is a study of horticulturally important insects, plant diseases, and weeds. Emphasis is on identification, prevention, and control.

HRT 153 LANDSCAPE CONSTRUCTION (3-0-3.0)
This course covers the requirements and techniques of landscape construction. Emphasis is placed on construction of wood, concrete, and brick landscape structures.

HRT 154 GROUNDS MAINTENANCE (3-0-3.0)
This course covers cost estimation of a landscape design and its maintenance, preparation of contracts and development, and implementation of maintenance schedules.

HRT 205 COMPUTERS IN HORTICULTURE (3-0-3.0)
This course explores the use of computers in horticultural operations. Various applications are demonstrated, and hands-on learning activities including data management, advertising and marketing, and design projects are utilized.

HRT 209 HORTICULTURE MANAGEMENT (3-0-3.0)
This course covers the application of business principles to horticultural operations. Topics include personnel management, insurance, taxes, financing, recordkeeping, marketing, and advertising. The personal computer is utilized in lab projects.

HRT 223 IRRIGATION (3-3-4.0)
This course includes the study and application of the design principles and materials used in horticultural irrigation.
Prerequisite(s): HRT 102

HRT 230 GREENHOUSE TECHNOLOGY (3-3-4.0)
This course is the study of commercial greenhouse production techniques and facility management.
Prerequisite(s): HRT 110 and HRT 117

HRT 231 NURSERY TECHNOLOGY (3-3-4.0)
This course is a study of wholesale and retail nursery operations. Emphasis is on producing container and field-grown plants and the retail sales of these and other garden products.
Prerequisite(s) HRT 105 and HRT 110
HRT 241 TURF MANAGEMENT (3-0-3.0)
This course is a study of the identification, use, culture, and maintenance of turf grasses. Emphasis is on the installation and management of turf in residential, commercial, and public areas.

HRT 253 LANDSCAPE INSTALLATION (3-3-4.0)
This course is a study of the installation of landscapes, including reading plans, planting, and construction of necessary structures. Instruction in various styles of landscape features and the development of cost estimates and bids are included.
Prerequisite(s): HRT 102

HRT 256 LANDSCAPE MANAGEMENT (3-3-4.0)
This course is a study of proper grounds management procedures. Landscape maintenance tasks, scheduling, estimating, and bidding are included.
Prerequisite(s): HRT 105, HRT 177, HRT 125, and HRT 141.

HRT 270 SPEC TOPICS IN HORTICULTURE (3-0-3.0)
This course includes special topics in the area of horticulture.
Prerequisite(s) Permission of instructor.

HRT 271 SCWE IN HORTICULTURE (0-40-8.0)
This course includes supervised comprehensive work experience in the horticulture industry. Work in a horticulture related position under supervision of the instructor and employer is required.
Prerequisite(s): Must have completed 1 year of horticulture and/or permission of instructor.

HSS 205 TECHNOLOGY AND SOCIETY (3-0-3.0)
This course is an investigation of the impact of the 20th century technological changes in America on the individual, society, and the physical environments. A survey of technological advances from ancient times to present will preface the 20th century focus.

HUC 101 HEALTH UNIT PROCEDURES I (3-0-3.0)
This course includes a study of non-nursing hospital procedures as they relate to the coordination of a nursing unit.

HUC 102 HEALTH UNIT PROCEDURES II (3-0-3.0)
This course includes a study of health unit procedures.
Prerequisite(s): HUC 101 with a grade of "C" or better

HUC 151 CLINICAL PROCEDURES I (0-12-4.0)
This course covers practical application in clinical settings of non-nursing hospital procedures as they relate to the coordination of a nursing unit.

HUC 152 CLINICAL PROCEDURES II (0-12-4.0)
This course includes emphasis on practical application in the clinical setting of health unit procedures.
Prerequisite(s): HUC 151 with a grade of "C" or better
HUS 101  INTRODUCTION TO HUMAN SERVICES (3-0-3.0)
This course covers an overview of the field of human services. Role responsibilities, problems, boundaries, and strategies of human service workers are included.

HUS 150  SUPERVISED FIELD PLACEMENT I (0-12-3.0)
This course includes work experience assignments by students in selected human services agencies.
Prerequisite(s): HUS 101, AHS 117

HUS 205  GERONTOLOGY (3-0-3.0)
This course is a survey of the physical, social, and mental changes that occur as a person ages. The related problems and current programs designed for people age 55 and over are studied in the course.

HUS 216  BEHAVIOR CHANGE TECHNIQUES (3-0-3.0)
This course is a study of major theories associated with individual and group psychotherapy, family therapy, and alcohol, drug, and vocational rehabilitation. Emphasis is placed on the techniques of behavioral change.

HUS 260  HUMAN SERVICES SPECIAL TOPICS (2-3-3.0)
This course is a study of special topics of interest to particular populations and locations.

IDS 100  GENERAL REASONING SKILLS (3-0-3.0)
This course is the study of general reasoning and critical thinking with emphasis on methods to facilitate problem-solving and decision making.
Prerequisite(s): none

IDS 101  HUMAN THOUGHT & LEARNING (3-0-3.0)
This course explores the principles, methods, and applications of human thought and learning, including such topics as attention, information processing, problem-solving, hypothesis testing, memory, argumentation, learning theory, and cognitive awareness.

IMT 102  INDUSTRIAL SAFETY (2-0-2.0)
This course covers safety awareness and practices found in industry.

IMT 104  SCHEMATICS (2-0-2.0)
This course covers the interpretation of mechanical, fluid power, and/or electrical schematics.

IMT 105  MECHANICAL SKETCHING (1-3-2.0)
This course covers lab skills in mechanical/electrical sketching of drawings.

IMT 111  INDUSTRIAL TOOLS (3-6-5.0)
This course covers the use of hand/or power tools.

IMT 113  POWER TOOL OPERATIONS (1-3-2.0)
This course covers the use of power tools and their applications in industrial and service areas.
IMT 120 MECHANICAL INSTALLATIONS (3-6-5.0)
This course covers techniques of assembling, rigging and installation and/or maintenance of mechanical equipment.

IMT 121 DRIVE SYSTEMS (1-3-2.0)
This course covers drive system consisting of belts and pulleys, chains and sprockets, and gear drives used to transmit power.

IMT 123 AIR COMPRESSORS (1-3-2.0)
This course covers methods used to install and/or maintain various types of air compressors.

IMT 130 FLUID POWER (2-9-5.0)
This course covers the basic principles of hydraulics and pneumatics, including the installation, maintenance, troubleshooting and repair of various systems.

IMT 131 HYDRAULICS & PNEUMATICS (4-0-4.0)
This course covers the basic technology and principles of hydraulics and pneumatics.

IMT 140 INDUSTRIAL ELECTRICITY (3-6-5.0)
This course covers basic electrical fundamentals, including measuring devices, circuitry and controls for industrial circuits.

IMT 141 ELECTRICAL CONTROL DEVICES (4-3-5.0)
This course covers principles and applications of electrical motor control circuits and the industrial equipment.

IMT 160 PREVENTIVE MAINTENANCE (3-0-3.0)
This course covers preventive maintenance techniques.

IMT 161 MECHANICAL POWER APPLICATION (1-9-4.0)
This course covers mechanical transmission devices, including procedures for installation, removal, and maintenance.

IMT 170 STATISTICAL PROCESS CONTROL (3-0-3.0)
This course is a study of the concepts and charts used in quality control.

IST 220 DATA COMMUNICATIONS (3-0-3.0)
This course is a study of the fundamentals of data communications. Basic signaling, networking, and various transmission media are covered.
Prerequisite(s): CPT 114 with a grade of "C" or better.

ITP 101 INTRODUCTION TO INTERPRETING (3-0-3.0)
This course introduces the profession of interpreting, the role and function of an interpreter, the National Registry of Interpreters for the deaf Code of Ethics and Professionalism. The course also introduces the basic theories, principles and practices of interpreting, physical factors, techniques, compensation and certification processes.
ITP 102 DEAF HISTORY AND CULTURE (3-0-3.0)
This course studies the history of deaf education, the deaf community, and attitudinal changes toward languages as they affect deaf culture.

ITP 103 FIELD EXPERIENCE (0-3-1.0)
This course provides practical experience through observation of professional interpreters, attendance at professional workshops and social/cultural events for and with deaf people, and weekly recitations with instructors. Students keep weekly journals.

ITP 104 INTERPRETING IN EDUCATIONAL SETTINGS (3-0-3.0)
This course will reinforce basic theories and techniques as related to mainstream educational settings K-12 and the community college.

ITP 105 MOCK INTERPRETING I 105 (QUALIFYING EXAM I) (0-3-1.0)
This course provides mock interpreting settings allowing students to apply interpreting skills in structured settings without impacting actual consumers. Students will apply text and discourse analysis and research actual or anticipated jargon. Students will take the qualifying exam at the end of this course to establish readiness to enroll in Interpreting Internship.
Prerequisite: American Sign Language III.

ITP 200 PSYCHO-SOCIAL ASPECTS OF DEAFNESS (3-0-3.0)
This course will provide students with knowledge in types of communication problems resulting from deafness, ease in mixing with deaf persons, occupational trends for the deaf, causes and physiological aspects of deafness and social barriers faced by deaf individuals. Deaf individuals and leaders in the community will be invited into the classroom to discuss these topics along with professionals working with the deaf in various situations.

ITP 205 MOCK INTERPRETING II (QUALIFYING EXAM II) (0-6-2.0)
This course will enable students to interpret in an actual setting without consumers.
Prerequisite: Mock Interpreting I (Qualifying Exam I)

ITP 202 TRANSLITERATING I (3-0-3.0)
This course presents the skills required to transmit English into manually coded English and vice versa and introduces a variety of manual codes and their relationship to American Sign Language. Prerequisite: American Sign Language III.

ITP 204 INTERPRETING (3-0-3.0)
This course develops accuracy and clarity in expressive interpreting at a speed of 80 to 125 WPM. Role play in actual experiences. Prerequisite: American Sign Language IV.

ITP 206 SIGN TO VOICE INTERPRETING (3-0-3.0)
This course provides classroom work giving verbatim translations and voicing materials. There is an emphasis on the use of tapes and simulated situations. Vocabulary development, word endings and use of temporary signs are included. The student will learn to translate simultaneously from manual to spoken English and to interpret from ASL into spoken English. In addition, the student will acquire skill in reading and translating the manual alphabet and in interpreting from various forms of manual communication into appropriate English diction.
ITP 208 TRANSLITERATING II (3-0-3.0)
This course provides further studies in transmitting English into a manually coded system and vice versa. It also introduces other sign English codes and how they relate to American Sign Language. Prerequisite: Transliterating I.

ITP 212 INTERPRETING IN SPECIAL SETTINGS (3-0-3.0)
This course will reinforce basic theories and techniques in relation to specialized interpreting settings and consumer needs, including the following: Oral, Deaf/Blind, Minimal Language Competency, Telephone, Religious, Performing Arts, Social Service, Medical, Mental Health and Legal. Prerequisite: Interpreting in Educational Settings.

ITP 214 INTERPRETING INTERNSHIP (0-9-3.0)
This course allows students to gain practical experience assuming the role of a professional interpreter in a structured setting with on-going feedback from a professional interpreter. Prerequisite: Minimum passing scores on the qualifying exam.

MAT 100 INTRODUCTION COLLEGE MATH (5-0-5.0)
This course includes the following topics in an algebraic context: mathematical methods, techniques, ways of thinking, and problem solving. (Non-degree Credit)

MAT 101 BEGINNING ALGEBRA (3-0-3.0)
This course includes the following topics: operations with signed numbers; addition, subtraction, multiplication, and division with algebraic expressions; factoring; techniques for solving linear and fractional equations; and an introduction to graphing.

MAT 102 INTERMEDIATE ALGEBRA (3-0-3.0)
This course includes the following topics: properties of numbers; fundamental operations with algebraic expressions; polynomials; systems of equations; ratio and proportion; factoring; functions; graphs; solutions of linear inequalities; and linear and quadratic equations.
Prerequisite(s): MAT 101 with "C" or higher or placement.

*MAT 110 COLLEGE ALGEBRA (3-0-3.0)
This college transfer course includes the following topics: polynomial, rational, logarithmic, and exponential functions; inequalities; systems of equations and inequalities; matrices; determinants; simple linear programming; solutions of higher degree polynomials; combinatorial algebra, including the binomial theorem; and introduction to probability.
Prerequisite(s): MAT 102 with "C" or higher or placement.

*MAT 111 COLLEGE TRIGONOMETRY (3-0-3.0)
This college transfer course includes the following topics: circular functions; trigonometric identities; solution of right and oblique triangles; solution of trigonometric equations; polar coordinates; complex numbers, including DeMoivre's theorem; vectors; conic sections; sequences; and series.
Prerequisite: MAT 110 with "C" or higher.

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*MAT 112 PRECALCULUS (5-0-5.0)
This college transfer course includes the following topics: algebraic, exponential, logarithmic, and trigonometric functions and their graphs; analytic trigonometry; analytic geometry; and applications of trigonometry.
Prerequisite(s): MAT 102 with "C" or higher or placement.

*MAT 120 PROBABILITY & STATISTICS (3-0-3.0)
This college transfer course includes the following topics: introductory probability and statistics, including organization of data, sample space concepts, random variables, counting problems, binomial and normal distributions, central limit theorem, confidence intervals, and test hypothesis for large and small samples; types I and II errors; linear regression; and correlation.
Prerequisite(s): MAT 101 with "C" or higher.

*MAT 122 FINITE COLLEGE MATH (3-0-3.0)
This college transfer course includes the following topics: logic; sets; venn diagrams; counting problems; probability; matrices; systems of equations; linear programming, including the simplex method and applications; graphs; and networks.
Prerequisite(s): MAT 102

*MAT 130 ELEMENTARY CALCULUS (3-0-3.0)
This college transfer course includes the following topics: differentiation and integration of polynomials; rational, logarithmic, and exponential functions; and interpretation and application of these processes.
Prerequisite(s): MAT 110 with "C" or higher.

*MAT 140 ANALYTICAL GEOMETRY & CALCULUS I (3.5-1.5-4.0)
This college transfer course includes the following topics: derivatives and integrals of polynomials; rational, logarithmic, exponential, trigonometric, and inverse trigonometric functions; curve sketching; maxima and minima of functions; related rates; work; and analytic geometry.
Prerequisite(s): MAT 111 or MAT 112 with "C" or higher.

*MAT 141 ANALYTICAL GEOMETRY & CALCULUS II (4-0-4.0)
This college transfer course includes the following topics: continuation of calculus of one variable, including analytic geometry, techniques of integration, volumes by integration, and other applications; infinite series, including Taylor series and improper integrals.
Prerequisite(s): MAT 140 with "C" or higher.

MAT 150 FUNDAMENTALS OF MATH (3-0-3.0)
This course includes the following topics: elementary number theory; basic algebra and geometry; English and SI measurements; ratio and proportion; statistics; and graph interpretation.

MAT 155 CONTEMPORARY MATHEMATICS (3-0-3.0)
This course includes techniques and applications of the following topics: elementary number theory; algebra; geometry; measurement; graph sketching and interpretations; and descriptive statistics.
MAT 160 MATH FOR BUSINESS & FINANCE (3-0-3.0)
This course includes the following topics: commissions, mark-on, depreciation, interest on unpaid balances, compound interest, payroll, taxes, and graphs.

MAT 165 STATISTICS (3-0-3.0)
This course includes the following topics: statistical data, statistical methods, presentation of data, sampling techniques, measures of central tendency, variability, correlation, and probability.

MAT 168 GEOMETRY & TRIGONOMETRY (3-0-3.0)
This course includes the following topics: points, lines, angles, and angle measure; triangles; polygons; circles; geometric solids; trigonometric solution of triangles; graph of the sine function; and vectors.
Prerequisite(s): MAT 101

MAT 178 TECHNICAL MATH I (5-0-5.0)
This course includes the following topics: laws and operations of algebra; linear and quadratic equations; systems of equations; introduction to trigonometry; vectors; graphs; and polynomial, rational, exponential, and logarithmic functions.
Prerequisite(s): MAT 102 with "C" or higher or placement.

MAT 179 TECHNICAL MATH II (5-0-5.0)
This course includes the following topics: trigonometric identities; complex numbers; conic sections; differentiation; and integration of polynomial, rational, exponential, logarithmic and trigonometric functions.
Prerequisite(s): MAT 178 with "C" or higher.

*MAT 211 MATH FOR ELEMENTARY EDUCATION I (3-0-3.0)
This college transfer course includes the following topics: logic, set theory, properties of and operations on counting numbers, integers, rational numbers, and real numbers.
Prerequisite(s): MAT 102 with "C" or higher.

*MAT 212 MATH FOR ELEMENTARY EDUCATION II (3-0-3.0)
This college transfer course includes the following topics: basic algebra, introductory geometry, probability, and statistics.
Prerequisite(s): MAT 211 with "C" or higher

*MAT 215 GEOMETRY (3-0-3.0)
This college transfer course includes the following topics: Euclidean geometry of points, lines, triangles, circles, and polygons; right triangle trigonometry; and analytical geometry of the straight line. (This course is designed primarily for elementary teachers.)
Prerequisite(s): MAT 212 with "C" or higher.

*MAT 240 ANALYTICAL GEOMETRY & CALCULUS III (3.5-1.5-4.0)
This college transfer course includes the following topics: multivariable calculus, including vectors; partial derivatives and their applications to maximum and minimum problems with and without constraints; line integrals; multiple integrals in rectangular and other coordinates; and stokes' and green's theorems.
Prerequisite(s): MAT 141 with a "C" or higher.

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*MAT 242 DIFFERENTIAL EQUATIONS (3.5-1.5-4.0)
This college transfer course includes the following topics: solution of linear and elementary non-linear differential equations by standard methods with sufficient linear algebra to solve systems; applications; series; laplace transform; and numerical methods.
Prerequisite(s): MAT 240 with a "C" or higher.

MED 112 MEDICAL ASSISTING PHARMACOLOGY (2-0-2.0)
This course provides a study of principles of pharmacology, drug therapy, and the administration of medication.

MED 122 MEDICAL OFFICE LAB PROCEDURES I (2-0-2.0)
This course introduces the student to beginning techniques of laboratory procedures commonly performed in a physician's office and other clinical agencies.

MED 156 CLINICAL EXPERIENCE I (0-18-6.0)
This course provides direct experience in a physician's office or other selected medical facilities.
Prerequisite(s): OST 143, OST 222, OST 164, AHS 123

MET 101 BASIC MEASURING PRINCIPLES (0-3-3.0)
This course covers the theory and practical application of basic measuring instruments used in a modern inspection (metrology) facility.

MET 211 STRENGTH OF MATERIALS (4-0-4.0)
This course covers externally applied forces and internally induced stresses in structural members and machine components. Materials selection and sizing components to meet requirements are included.
Prerequisite(s): EGR 190

MET 212 KINEMATICS (3-0-3.0)
This course covers mathematical and drafting solutions of problems involving linkage motion and velocities and acceleration of points on common mechanical devices.
Prerequisite(s): PHY 201

MET 213 DYNAMICS (3-0-3.0)
This course includes the motion of rigid bodies and the forces that produce or change their motion. Rectilinear and curvilinear motion of bodies is covered as well as the concepts of work, power, energy, impulse, momentum and impact in relation to machine and mechanisms.
Prerequisite(s): EGR 190, MET 212

MET 214 FLUID MECHANICS (3-0-3.0)
This course is a study of the physical properties of fluids and includes hydrostatics, buoyancy, flow of incompressible fluids, orifices, venturis and nozzles.
Prerequisite(s): PHY 201
MET 222 THERMODYNAMICS (3-3-4.0)
This course includes the study of the thermodynamic principles of heat, work, non-flow and steady flow processes, and cycles. The use of thermodynamic tables and charts are stressed.
Prerequisite(s): PHY 201

MET 224 HYDRAULICS & PNEUMATICS (3-0-3.0)
This course covers basic hydraulics and pneumatic principles and circuits. System components such as pumps, compressors, piping, valves, cylinders, fluid motors, accumulators and receivers are discussed.
Prerequisite(s): MET 214

MET 231 MACHINE DESIGN (3-3-4.0)
This course covers the design and applications of machine elements such as shafts, couplings, springs, brakes, clutches, gears and bearings. It also covers the applications of principles of dc/ac, statics, strength of materials, engineering drawing and dynamics to the design of simple machines.
Prerequisite(s): MET 211, EGR 170

MET 232 AIR CONDITIONING (3-3-4.0)
This course covers thermodynamic and compressible fluid flow principles involved in the sizing and selection of heating and cooling systems as well as the distribution of conditioned air.
Prerequisite(s): MET 222

MET 235 MANUFACTURING ENGINEERING PRINCIPLES (1-3-2.0)
This course covers an analysis of the management of manufacturing using the tools of work cell design, standards, process planning, inventory control, and quality control. It includes analytical decision making and planning techniques.
Prerequisite(s): EGT 165

MET 240 MECHANICAL SENIOR PROJECT (0-3-1.0)
This course includes investigations and/or advanced study in an area of specialization approved by the instructor.
Prerequisite: MET 231

MGT 101 PRINCIPLES OF MANAGEMENT (3-0-3.0)
This course is a study of management theories, emphasizing the management functions of planning, decision making, organizing, leading, and controlling. The analysis of business operations is also introduced.
Prerequisite(s): None

MGT 105 SURVEY OF MANAGEMENT (2-0-2.0)
This course is a study of the basic principles of management and supervision. The management functions of planning, decision making, organizing, leading, and controlling are stressed.
Prerequisite(s): None
NOTE: This course may not be used as an elective in those programs which require MGT 101.
MGT 120 SMALL BUSINESS MANAGEMENT (3-0-3.0)
This course is a study of small business management and organization, forms of ownership, and the process of starting a new business.
Prerequisite(s): None

MGT 150 FUNDAMENTALS OF SUPERVISION (3-0-3.0)
This course is a study of supervisory principles and techniques required to effectively manage human resources in an organization. First-line management is emphasized. Topics to be covered include motivation, planning and staffing, productivity, and the role of management in human relations.
Prerequisite(s): MGT 101 with a grade of "C" or better.

MGT 201 HUMAN RESOURCE MANAGEMENT (3-0-3.0)
This course is a study of personnel administration functions within a business organization. Major areas of study include job analysis, recruitment, selection and assessment of personnel; and wage, salary and benefit administration. Labor union relations will also be covered.
Prerequisite(s): MGT 101 with a grade of "C" or better.

MGT 205 LABOR RELATIONS (3-0-3.0)
This course is a study of unionism, collective bargaining, labor legislation and contemporary labor relations issues.

MGT 230 MANAGING INFORMATION RESOURCES (3-0-3.0)
This course is a study of the development, use and management of information resources, and systems in business and industry. Concepts of designing information systems including data flows, sources, storage, retrieval, processing and reporting will be covered.
Prerequisite(s): ACC 101, MGT 101 and CPT 101 with a grade of "C" or better.

MGT 235 PRODUCTION MANAGEMENT (3-0-3.0)
This course is a study of production management techniques used in a manufacturing environment. Major topics include forecasting, scheduling, inventory and work flow management, and quality control. Other topics will include break-even charts, plant location, and safety.
Prerequisite(s): MGT 101 with a grade of "C" or better.

MGT 255 ORGANIZATIONAL BEHAVIOR (3-0-3.0)
This course is a study of effective individual and group behavior in an organization to maximize productivity, and psychological and social satisfaction. Emphasis will be placed on effective leadership, informal and formal organizational structures, and communication and interpersonal processes.
Prerequisite(s): MGT 101 with a grade of "C" or better.

MKT 101 MARKETING (3-0-3.0)
This course covers an introduction to the field of marketing with a detailed study of the marketing concept and the processes of product development, pricing, promotion, and marketing distribution. Other topics will include consumer psychology, research and information systems, advertising and legislative considerations.
Prerequisite(s): None
MKT 110 RETAILING (3-0-3.0)
This course is a study of the importance of retailing in American business and covers the concepts of store location, layout, merchandising, display, pricing, inventory control, promotional programs and profit management. Demographics as it relates to retailing is also discussed.
Prerequisite(s): MKT 101 with a grade of “C” or better.

MKT 120 SALES PRINCIPLES (3-0-3.0)
This course is a study of the personal selling process with special emphasis on determining customer needs and developing effective communications and presentation skills.
Prerequisite(s): MKT 101 with a grade of “C” or better.

MKT 135 CUSTOMER SERVICE TECHNIQUES (3-0-3.0)
This course is a study of the techniques and skills required for providing customer service excellence, including illustrations to turn customer relations into high standards of customer service, satisfaction, and repeat sales.
Prerequisite(s): MKT 101 with a grade of “C” or better.

MKT 221 SALES STRATEGIES (3-0-3.0)
This course is a study of the organization and function of sales management, with emphasis on sales forecasting and the hiring and training of sales personnel.
Prerequisite(s): MKT 120 with a grade of “C” or better.

MKT 240 ADVERTISING (3-0-3.0)
This course is a study of the role of advertising in the marketing of goods and service, including types of advertising, media, how advertising is created, agency functions, and regulatory aspects of advertising. Also introduced will be display ads, copy and art work preparation, printing, and selection of media.
Prerequisite(s): MKT 101 with a grade of “C” or better.

MKT 250 CONSUMER BEHAVIOR (3-0-3.0)
This course is a study of the buying behavior process and how individuals make decisions to spend their available resources on consumption related items. Psychological theories and applications as well as consumer perceptions, product positioning, consumer attitudes and demographics are analyzed.
Prerequisite(s): MKT 101 with a grade of “C” or better.

MLT 102 MEDICAL LAB FUNDAMENTALS (2-3-3.0)
This course introduces basic concepts and procedures in medical laboratory technology.

MLT 105 MEDICAL MICROBIOLOGY (3-3-4.0)
This course provides a survey of organisms encountered in the clinical microbiology laboratory, including sterilization and disinfection techniques.

MLT 108 URINALYSIS & BODY FLUIDS (2-3-3.0)
This course introduces the routine analysis and clinical significance of urine and other body fluids.
Prerequisite(s): MLT 102, MLT 130
MLT 110 HEMATOLOGY (3-3-4.0)
This course provides a study of the basic principles of hematology, including hemoglobins, hematocrit, white and red counts, and identification of blood cells.
Prerequisite(s): MLT 102

MLT 120 IMMUNOHEMATOLOGY (3-3-4.0)
This course introduces the theory and practice of blood banking, including the ABO, Rh and other blood group systems, compatibility testing, and hdm.
Prerequisite(s): MLT 102

MLT 130 CLINICAL CHEMISTRY (3-3-4.0)
This course focuses on the study of nutritional, functional and excretional chemicals in blood and body fluids, including testing techniques and clinical significance.

MLT 205 ADVANCED MICROBIOLOGY (3-3-4.0)
This course provides a detailed study of microorganisms and the currently accepted procedures for identification of these microorganisms in the clinical laboratory.
Prerequisite(s): MLT 102, MLT 105

MLT 210 ADVANCED HEMATOLOGY (3-3-4.0)
This course provides a study of the diseases of blood cells and other hematologic procedures including coagulation.
Prerequisite(s): MLT 102, MLT 110

MLT 230 ADVANCED CLINICAL CHEMISTRY (3-3-4.0)
This course includes advanced theory, principles, and instrument techniques used in clinical chemistry.
Prerequisite(s): MLT 102, MAT 155, MLT 130

MLT 240 INTEGRATED LAB CONCEPTS (3-3-4.0)
This course integrates theory and clinical skills with new developments and advanced technology in laboratory medicine.
Prerequisite(s): All first year MLT courses

MLT 241 MEDICAL LAB TRANSITION (2-3-3.0)
This course correlates laboratory procedures and concepts with emphasis on higher level cognitive applications.
Prerequisite(s): All first year MLT courses

MLT 251 CLINICAL EXPERIENCE I (0-15-5.0)
This course provides an integrated, clinically-based rotation which correlates cognitive and technical skills in selected areas of the clinical laboratory.
Prerequisite(s): All first year MLT courses

MLT 252 CLINICAL EXPERIENCE II (0-15-5.0)
This course provides an integrated, clinically-based rotation which correlates cognitive and technical skills in selected areas of the clinical laboratory.
Prerequisite(s): All first year MLT courses
MLT 253 CLINICAL EXPERIENCE III (0-15-5.0)
This course provides an integrated, clinically-based rotation which correlates cognitive and technical skills in selected areas of the clinical laboratory.
Prerequisite(s): All first year MLT courses

MLT 254 CLINICAL EXPERIENCE IV (0-15-5.0)
This course provides an integrated, clinically-based rotation which correlates cognitive and technical skills in selected areas of the clinical laboratory.

MTT 121 MACHINE TOOL THEORY I (3-0-3.0)
This course covers the principles involved in the production of precision metal parts.
Co-requisite: EGT 104

MTT 122 MACHINE TOOL PRACTICE I (0-12-4.0)
This course covers practical experiences using the principles in Machine Tool Theory I.
Co-requisite: MTT 121

MTT 123 MACHINE TOOL THEORY II (3-0-3.0)
This course covers the principles involved in machining parts using machine tools, including lathes, mills, drill presses, jig bores, and the attachments for each.
Prerequisite(s): MTT 121, 122, EGT 104

MTT 124 MACHINE TOOL PRACTICE II (0-12-4.0)
This course covers the practical application of the principles in Machine Tool Theory II.
Co-requisite(s): MTT 123, EGT 108

MTT 125 MACHINE TOOL THEORY III (3-0-3.0)
This course covers the principles involved in the machining, heat treating, and grinding of complex metal parts.
Prerequisite(s): MTT 123, MTT 124, EGT 108

MTT 126 MACHINE TOOL PRACTICE III (0-12-4.0)
This course covers the practical application of the principles in Machine Tool Theory III.
Co-requisite: MTT 125

MTT 141 METALS & HEAT TREATMENT (3-0-3.0)
This course is a study of the properties, characteristics, and heat treatment procedures of metals.

MTT 211 DIE THEORY (3-0-3.0)
This course is a study of die components as they relate to the complete die.

MTT 215 TOOL ROOM MACHINING I (0-12-4.0)
This course covers advanced machine tool operations, including an introduction to basic die making.
Prerequisite(s): MTT 125, MTT 126, MTT 211
MTT 216 TOOL ROOM MACHINING II (0-12-4.0)
This course covers advanced machine tool operations, including complex die operations.
Prerequisite(s): MTT 215, MTT 211

MTT 241 JIGS AND FIXTURES I (2-0-2.0)
This course includes the theory necessary to design working prints of simple jigs and fixtures.
Prerequisite(s): MTT 125, MTT 126, EGT 104, EGT 108.

MTT 246 PLASTIC MOLDMAKING I (2-0-2.0)
This course is an introduction to moldmaking and plastics.
Prerequisite(s): EGT 104, EGT 108, MTT 125, MTT 126

MTT 250 PRINCIPLES OF CNC (3-0-3.0)
This course is an introduction to the coding used in CNC programming.
Prerequisite(s): MTT 121, 122, 123, 124, EGT 104

MTT 253 CNC PROGRAMMING AND OPERATIONS (0-9-3.0)
This course is a study of the planning, programming, selecting tooling, determining speeds and feeds, setting up, operating and testing of CNC programs on CNC machines.
Prerequisite: MTT 250

MTT 254 CNC PROGRAMMING I (0-9-3.0)
This course is a study of CNC programming, including machine language and computer assisted programming.
Prerequisite(s): MTT 250, MTT 253

MUS 105 MUSIC APPRECIATION (3-0-3.0)
This course is an introduction to the study of music with focus on the elements of music and their relationships, the musical characteristics of representative works and composers, common musical forms and genres of various western and non-western historical style periods, and appropriate listening experiences.

NET 110 RADIOLOGICAL EDUCATION MAINTENANCE (2-0-2.0)
This course is designed to provide radiation workers with a basic background in radiation protection and the occupational risks of work at nuclear power plants.

NET 111 PRESSURIZED WATER REACTOR FUNDAMENTALS (2-0-2.0)
This course covers pressurized water reactors, their systems and related safety features.

NET 120 INTRODUCTION TO NUCLEAR QUALITY ASSURANCE (2-3-3.0)
This course covers quality assurance and quality control concepts and procedures, surveillance techniques, codes, standards and regulatory guides.

NET 201 STEAM GENERATOR (1-3-2.0)
This course covers basic eddy current, sludge lance and mechanical plugging operations, procedures, and steam generator related service equipment.
NET 202 FUELING SERVICE (1-3-2.0)
This course covers basic fueling operations, procedures and related equipment.

NET 203 IN-SERVICE INSPECTION (1-3-2.0)
This course covers basic in-service inspection operations, procedures and related service equipment.

OST 105 KEYBOARDING (3-0-3.0)
This course focuses on the mastery of keyboarding and formatting principles. Letters, reports, tables, memorandums and envelopes will be introduced.
Prerequisite(s): None

OST 110 DOCUMENT FORMATTING (3-0-3.0)
This course emphasizes speed, accuracy, and developing document formatting skills using keyboarding competencies. Bound reports, printed forms, news releases, specialized correspondence, itineraries, minutes and legal documents will be typed.
Prerequisite(s): OST 105 with a grade of “C” or better

OST 112 MEDICAL DOCUMENT FORMATTING (3-0-3.0)
This course covers terminology unique to the medical office. Emphasis is on increasing speed, improving accuracy, and developing formatting skills.
Prerequisite(s): AHS 122 with a grade of “C” or better; OST 105 with a grade of “C” or better or by exemption exam.

OST 121 MACHINE TRANSCRIPTION (3-0-3.0)
This course provides experience in transcribing documents from dictation equipment. Emphasis is placed on development of accuracy, effective listening techniques, and proper punctuation of business documents.
Prerequisite(s): OST 105 with a grade of “C” or better.

OST 122 MEDICAL MACHINE TRANSCRIPTION I (3-0-3.0)
This course provides experience in transcribing medical documents from dictation equipment.
Prerequisite(s): OST 112 and AHS 123 with a grade of “C” or better.

OST 131 SHORTHAND I (3-0-3.0)
This is an introductory course to the basic principles of shorthand. Emphasis is placed on shorthand techniques, legibility, and mastery of the basic vocabulary. Dictation and transcription of familiar material are included. All theory and brief forms will be introduced.
Prerequisite(s): OST 105 with a grade of “C” or better.

OST 132 SHORTHAND II (3-0-3.0)
This course emphasizes dictation and transcription of familiar and unfamiliar material. Mailable transcription will be stressed.
Prerequisite(s): OST 131 with a grade of “C” or better.
OST 141 OFFICE PROCEDURES I (3-0-3.0)
This is an introductory course to a variety of office procedures and tasks using business equipment, systems and procedures. Filing, telephone techniques and calculator operation will be included.
Prerequisite(s): OST 105 with a grade of "C" or better or currently enrolled.

OST 143 OFFICE SYSTEMS AND PROCEDURES (3-0-3.0)
This course emphasizes procedures and applications used in the office environment. Medical filing systems and telephone techniques will be included.
Prerequisite(s): OST 112, OST 165, and AHS 123 with a grade of "C" or better.

OST 164 MEDICAL INFORMATION PROCESSING (3-0-3.0)
This course emphasizes development of proficiency in producing medical documents typical of those used in health care settings. Microcomputers will be used to complete assigned projects including word processing and patient billing.
Prerequisite(s): OST 165 and AHS 123 with a grade of "C" or better.

OST 165 INFORMATION PROCESSING SOFTWARE (3-0-3.0)
This course includes applications of information processing software. Emphasis is placed on functions for acceptable document formatting and processing. Microcomputers will be used to complete assigned projects using a popular software package.
Prerequisite(s): OST 105 with a grade of "C" or better.

OST 167 INFORMATION PROCESSING APPLICATIONS (3-0-3.0)
This course emphasizes applications and features of information processing software. Microcomputers will be used to complete assigned projects including word processing, spreadsheet, and data base programs.
Prerequisite(s): OST 165 with a grade of "C" or better.

OST 210 DOCUMENT PRODUCTION (3-0-3.0)
This course emphasizes the production of documents found in typical business offices. The major focus is on productivity and excellence in document production. Advanced memory functions will be used to complete a simulation.
Prerequisite(s): OST 110 with a grade of "C" or better.

OST 212 MEDICAL DOCUMENT PRODUCTION (3-0-3.0)
This course covers the production of documents found in medical offices. The major focus is on productivity and excellence in medical document production. Emphasis is placed on diagnostic and therapeutic output.
Prerequisite(s): OST 112 with a grade of "C" or better.

OST 221 ADVANCED MACHINE TRANSCRIPTION (3-0-3.0)
This course emphasizes accuracy and speed development in transcribing business applications from dictation equipment.
Prerequisite(s): OST 121 with a grade of "C" or better.
OST 222 MEDICAL MACHINE TRANSCRIPTION II (3-0-3.0)
This course is designed to develop speed and accuracy in transcribing complex medical terms and documents from dictation equipment. Tapes dictated by physicians who speak with foreign accents are included.
Prerequisite(s): OST 122 with a grade of “C” or better.

OST 223 MEDICAL MACHINE TRANSCRIPTION III (3-0-3.0)
This course emphasizes the development of speed and accuracy in transcribing a variety of medical documents from physicians’ unedited dictation. Emphasis is placed on transcribing tapes with background noises and dictated by physicians with foreign accents.
Prerequisite(s): OST 222 with a grade of “C” or better.

OST 251 ADMINISTRATIVE SYSTEMS AND PROCEDURES (3-0-3.0)
This course covers processing information in the electronic office. Emphasis is on increasing proficiency in performing a variety of office tasks. A simulation will be completed.
Prerequisite(s): OST 105 and OST 141 with a grade of “C” or better.

OST 252 MEDICAL SYSTEMS AND PROCEDURES (3-0-3.0)
This course emphasizes development of proficiency in integrating skills commonly performed in medical offices. Microcomputers and electronic typewriters will be used to complete a medical simulation.
Prerequisite(s): OST 112, AIS 123, OST 165, and OST 143 with a grade of “C” or better.

PHI 101 INTRODUCTION TO PHILOSOPHY (3-0-3.0)
This course includes a topical survey of the three main branches of philosophy — epistemology, metaphysics, and ethics — and the contemporary questions related to these fields. Discussions of eastern views, continental philosophy and science are also included.

PHI 110 ETHICS (3-0-3.0)
This course is a study of the moral principles of conduct emphasizing ethical problems and modes of ethical reasoning.

PHI 201 HISTORY OF PHILOSOPHY (3-0-3.0)
This course is a survey of the history of philosophical thinking.
Prerequisite(s): PHI 101

PHM 115 DRUG CLASSIFICATIONS I (2-0-2.0)
This course covers an introduction of pharmacologic classification of drugs, including generic and brand names, and a survey of actions and reactions of the major pharmacologic groups, including routes of administration and dosage forms.

*PHS 101 PHYSICAL SCIENCE I (3-3-4.0)
This college transfer course is the first of a sequence of courses in physical science and includes an introduction to science with emphasis on science terminology and investigations of the physical world. Topics are selected from astronomy, chemistry, geology and physics.
Prerequisite(s): MAT 101
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>PHS 102</td>
<td>PHYSICAL SCIENCE I (3-3-4.0)</td>
<td></td>
<td>This is a continuation of the introduction to science with emphasis on science terminology and investigations of the physical world. Topics are selected from astronomy, chemistry, geology, and physics. Prerequisite(s): MAT 101</td>
</tr>
<tr>
<td>PHS 111</td>
<td>CONCEPTUAL PHYSICS I (3-0-3.0)</td>
<td></td>
<td>This course is an introduction to the mechanical concepts of distance, time, mass, force, energy and power. Prerequisite(s): MAT 101</td>
</tr>
<tr>
<td>PHS 112</td>
<td>CONCEPTUAL PHYSICS II (3-0-3.0)</td>
<td></td>
<td>This course is an introduction of the concepts of thermodynamics and light. Prerequisite(s): MAT 101</td>
</tr>
<tr>
<td>PHS 116</td>
<td>PHYSICS CONCEPTS I (3-3-4.0)</td>
<td></td>
<td>This elementary physics course includes selected topics from mechanics, heat, light, sound and electricity. Prerequisite(s): MAT 101</td>
</tr>
<tr>
<td>PHS 117</td>
<td>PHYSICS CONCEPTS II (3-3-4.0)</td>
<td></td>
<td>This course includes selected topics from mechanics, heat, light, sound and electricity with an emphasis on problem solving. Prerequisite(s): PHS 116</td>
</tr>
<tr>
<td>PHS 118</td>
<td>RADIOLOGICAL PHYSICS (3-0-3.0)</td>
<td></td>
<td>This course covers the fundamentals of electricity, radiation physics, X-ray equipment, and auxiliary devices. Prerequisite(s): MAT 101</td>
</tr>
<tr>
<td>PHY 100</td>
<td>INTRODUCTORY PHYSICS (3-0-3.0)</td>
<td></td>
<td>This is a course in general physics including introductory principles of physics for higher level physics study. (Non-degree credit) Prerequisite(s): MAT 102 with grade of “C” or higher.</td>
</tr>
<tr>
<td>PHY 201</td>
<td>PHYSICS I (3-3-4.0)</td>
<td></td>
<td>This is the first in a sequence of physics courses. Topics include mechanics, wave motion, sound, heat, electromagnetism, optics, and modern physics. Prerequisite(s): MAT 111 with grade of “C” or higher, or MAT 112 with grade of “C” or higher, or MAT 178 with grade of “C” or higher.</td>
</tr>
<tr>
<td>PHY 202</td>
<td>PHYSICS II (3-3-4.0)</td>
<td></td>
<td>This course covers physics topics, including mechanics, wave motion, sound, heat, electromagnetism, optics, and modern physics. Prerequisite(s): PHY 201</td>
</tr>
</tbody>
</table>
*PHY 221 UNIVERSITY PHYSICS I (3-3-4.0)
This is the first of a sequence of college transfer courses. The course includes a calculus based treatment of the following topics: vectors, laws of motion, rotation, vibratory and wave motion.
Prerequisite(s): MAT 140

*PHY 222 UNIVERSITY PHYSICS II (3-3-4.0)
This college transfer course is a continuation of calculus based treatment of the following topics: thermodynamics, kinetic theory of gases, electricity and magnetism, including electrostatics, dielectrics, electric circuits, magnetic fields and induction phenomena.
Prerequisite(s): PHY 221

*PHY 223 UNIVERSITY PHYSICS III (3-3-4.0)
This college transfer course is a continuation of the calculus based treatment of the following topics: particle and wave aspects of matter and radiation, statistical mechanics, solid state, and nuclear physics.
Prerequisite(s): PHY 222

PNR 110 FUNDAMENTALS OF NURSING (3-6-5.0)
This course provides an introduction to basic principles and beginning skills necessary to the nursing process. Concepts are integrated relating to physiological and psychosocial needs of the individual. Legal and ethical roles of the practical nurse are emphasized.

PNR 112 NUTRITION (2-0-2.0)
This course is a study of the nutritional needs of the individual throughout the life cycle. The basic elements of nutrition, the function of the nutrients in the body, and selected therapeutic diets are presented in the course.
Prerequisite(s): All first semester courses

PNR 120 MEDICAL/SURGICAL NURSING I (3-6-5.0)
This course is a beginning study utilizing the nursing process. Concepts include physiological, psychosocial, nutritional, and health and safety needs of the adult. Clinical experiences address selected commonly occurring health problems having predictable outcomes.

PNR 122 PHARMACOLOGY (3-0-3.0)
This is an introductory course to the concepts of pharmacology and medication administration. Emphasis is on calculation of dosages, administration of medications, and correct use of abbreviations. Effects of specific drugs are presented.

PNR 130 MEDICAL/SURGICAL NURSING II (3-6-5.0)
This course is a continuation of the study of the nursing process. Concepts include the physiological, psychosocial, nutritional and health and safety needs of the adult. Clinical experiences address selected commonly occurring health problems having predictable outcomes.
Prerequisite(s): All first semester courses
PNR 140 MEDICAL/SURGICAL NURSING III (3-6-5.0)
This course is a continuation of the study of the nursing process. Concepts include physiological, psychosocial, nutritional, and health and safety needs of the adult. Clinical experiences address selected commonly occurring health problems having predictable outcomes.
Prerequisite(s): All first semester courses

PNR 150 MATERNAL AND INFANT NURSING (2-6-4.0)
This course is a study utilizing the nursing process to meet the needs of the childbearing family. Clinical experiences address the care of the healthy mother from conception through postpartum and the care of the normal newborn.
Prerequisite(s): All second semester courses

PNR 160 NURSING OF CHILDREN (2-6-4.0)
This course is a study utilizing the nursing process as it relates to the care of the children. Clinical experiences address the care of children with commonly occurring illnesses. Concepts of growth and development, pharmacology, nutrition and mental health are integrated.
Prerequisite(s): All second semester courses

PNR 170 NURSING OF THE OLDER ADULT (1-3-2.0)
This course is a study utilizing the nursing process. Concepts include physiological, psychosocial, nutritional, and health and safety needs of the older patient. Clinical experiences address selected commonly occurring health problems having predictable outcomes.
Prerequisite(s): All first semester courses

PNR 181 SPECIAL TOPICS IN PRACTICAL NURSING (1-0-1.0)
This course covers special topics in Practical Nursing.
Prerequisite(s): All second semester courses

*PSC 201 AMERICAN GOVERNMENT (3-0-3.0)
This college transfer course is a study of national governmental institutions with emphasis on the Constitution, the functions of the executive, legislative and judicial branches, civil liberties and the role of the electorate.

PSC 205 POLITICS AND GOVERNMENT (3-0-3.0)
This course is a study of the concepts and problems involved in man’s relationships with governments and political changes. This course emphasizes comparative institutions of government, analysis of political behavior, and political ideology.

PSC 210 CONTEMPORARY POLITICAL ISSUES (3-0-3.0)
This course is a study of current political issues.

PSC 215 STATE AND LOCAL GOVERNMENT (3-0-3.0)
This course is a study of state, county, and municipal governmental systems, including interrelationships between these systems and within the federal government.
PSC 220 INTRODUCTION TO INTERNATIONAL RELATIONS (3-0-3.0)
This course introduces the major focus and factors influencing world affairs, with emphasis on the role of the United States in the global community and the impact of growing interdependence on daily living.

PSY 103 HUMAN RELATIONS (3-0-3.0)
This course is a study of human relations, including the dynamics of behavior, interrelationships, and personality as applied in everyday life. The course is a study of the technical and the administrative systems including organization design, technology, job redesign and enrichment, leadership and appraising performance. Other topics deal with work problems and behavioral effectiveness, including communicating, managing change and using organizational development interventions. Classes stimulate students to think practically and to resolve human relations problems.

*PSY 201 GENERAL PSYCHOLOGY (3-0-3.0)
This college transfer course includes the following topics and concepts in the science of behavior: scientific method, biological basis for behavior, perception, motivation, learning, memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology. A critical thinking approach fosters student curiosity, stimulates thought and encourages the application of psychological principles in solving problems and analyzing situations.

*PSY 203 HUMAN GROWTH AND DEVELOPMENT (3-0-3.0)
This college transfer course is a study of the physical, cognitive and social factors affecting human growth, development, and potential.
Prerequisite(s): PSY 201

*PSY 212 ABNORMAL PSYCHOLOGY (3-0-3.0)
This college transfer course is a study of the nature and development of behavioral disorders, including the investigation of contemporary treatment procedures.
Prerequisite(s): PSY 201

QAT 101 INTRODUCTION TO QUALITY ASSURANCE (3-0-3.0)
This course covers the fundamentals of quality control, the evolution of the total quality system and the modern philosophy of quality. Process variability, fundamentals of probability and the basic concepts of control charts are included.

QAT 102 QUALITY CONCEPTS & TECHNIQUES (3-0-3.0)
This course covers the basic theory and concepts of quality. The total quality system, basic statistics, variable control charts and the commitment to quality are emphasized.
Prerequisite(s): QAT 101

QAT 103 QUALITY MANAGEMENT (3-0-3.0)
The total quality concept, including organization, planning, organizational budgeting, product liability and the jobs of quality, are covered in this course. Statistics required to construct attribute control charts are also included.
Prerequisite(s): QAT 102
QAT 232 STATISTICAL QUALITY CONTROL (3-0-3.0)
This course covers quality control in industry, constructing frequency distributions, statistical concepts applied to charts and fundamentals of sampling plans.
Prerequisite(s): MAT 120

RAD 101 INTRODUCTION TO RADIOGRAPHY (2-0-2.0)
This course provides an introduction to radiologic technology with emphasis on orientation to the radiology department, ethics and basic radiation protection.

RAD 105 RADIOGRAPHIC ANATOMY (3-3-4.0)
This course includes the study of the structures of the human body and the normal function of its systems. Special emphasis is placed on radiographic anatomy.

RAD 110 RADIOGRAPHIC IMAGING I (2-3-3.0)
This course provides a detailed study of the parameters controlling radiation quality and quantity for radiographic tube operation and image production.
Prerequisite(s): RAD 152

RAD 115 RADIOGRAPHIC IMAGING II (2-3-3.0)
This course continues a detailed study of primary and secondary influencing factors and accessory equipment related to imaging.
Prerequisite(s): RAD 110, RAD 165

RAD 121 RADIOGRAPHIC PHYSICS (3-3-4.0)
This course introduces the principles of radiographic physics, incorporating theory and application of basic principles underlying the operation and maintenance of X-ray equipment.
Prerequisite(s): MAT 155, RAD 115

RAD 130 RADIOGRAPHIC PROCEDURES I (2-3-3.0)
This course provides an introduction to radiographic procedures. Positioning of the chest, abdomen and extremities are included.
Prerequisite(s): RAD 101, RAD 152, AHS 110

RAD 136 RADIOGRAPHIC PROCEDURES II (2-3-3.0)
This course is a study of radiographic procedures for visualization of the structures of the body.
Prerequisite(s): RAD 130, RAD 165, RAD 105

RAD 152 APPLIED RADIOGRAPHY I (1-3-2.0)
This course introduces the clinical environment of the hospital by providing basic use of radiographic equipment and routine radiographic procedures.

RAD 165 APPLIED RADIOGRAPHY II (0-15-5.0)
This course includes the use of radiographic equipment and performance of radiographic procedures within the clinical environment of the hospital.
Prerequisite(s): RAD 152, RAD 101, AHS 110
RAD 176 APPLIED RADIOGRAPHY III (0-18-6.0)
This course includes clinical education needed for building competence in performing radiographic procedures within the clinical environment.
Prerequisite(s): RAD 165, RAD 130, RAD 105, RAD 110

RAD 201 RADIATION BIOLOGY (2-0-2.0)
This course is a study of the principles of radiobiology and protection. It emphasizes procedures that keep radiation exposure to patients, personnel, and the population at large to a minimum.
Prerequisite(s): RAD 101, RAD 230

RAD 205 RADIOGRAPHIC PATHOLOGY (2-0-2.0)
This course provides a survey of disease processes significant to the Radiographer, including etiology, diagnosis, prognosis, and treatment.
Prerequisite(s): RAD 105

RAD 220 SELECTED IMAGING TOPICS (1-6-3.0)
This course is a study of advanced topics unique to the radiological sciences.
Prerequisite(s): RAD 201, RAD 121, RAD 205

RAD 230 RADIOGRAPHIC PROCEDURES III (2-3-3.0)
This course is a study of special radiographic procedures.
Prerequisite(s): RAD 136, RAD 176

RAD 257 ADVANCED RADIOGRAPHY I (0-21-7.0)
This course includes independently performing routine procedures in a radiology department, including involvement in advanced radiographic procedures.
Prerequisite(s): RAD 176, RAD 136, RAD 115

RAD 268 ADVANCED RADIOGRAPHY II (0-24-8.0)
This course includes routine radiographic examinations, as well as advanced procedures, while continuing to build self-confidence in the clinical atmosphere.
Prerequisite(s): RAD 257, RAD 230

RAD 278 ADVANCED RADIOGRAPHY III (0-24-8.0)
This course includes routine and advanced radiographic procedures in the clinical environment.
Prerequisite(s): RAD 268, RAD 121, RAD 201

RAD 282 IMAGING PRACTICUM (1-3-2.0)
This clinical course provides an opportunity for exploration of career opportunities in radiology and advanced imaging modalities.
Prerequisite(s): RAD 230, RAD 257

RAD 283 IMAGING PRACTICUM (1-6-3.0)
This clinical course provides an opportunity for exploration of career opportunities in radiology and advanced imaging modalities.
Prerequisite(s): RAD 230, RAD 268
RDG 100 CRITICAL READING (3-0-3.0)
This course covers the application of basic reading skills to improve critical comprehension and higher order thinking skills.

RES 101 INTRODUCTION TO RESPIRATORY CARE (3-0-3.0)
This course includes introduction topics pertinent to entering the respiratory care profession, i.e., medical terminology, ethical issues, and legal issues.

RES 111 PATHOPHYSIOLOGY (2-0-2.0)
This course is a study of the general principles and analyses of normal and diseased states.
Prerequisite(s): RES 141

RES 121 RESPIRATORY SKILLS I (3-3-4.0)
This course includes a study of basic respiratory therapy procedures and their administration.

RES 123 CARDIOPULMONARY PHYSIOLOGY (3-0-3.0)
This course covers cardiopulmonary physiology and related systems.
Prerequisite(s): Completion of first year semester courses

RES 131 RESPIRATORY SKILLS II (3-3-4.0)
This course is a study of selected respiratory care procedures and applications, including basic mechanical ventilation concepts.
Prerequisite(s): AHS 104, RES 101, RES 121

RES 141 RESPIRATORY SKILLS III (2-3-3.0)
This course covers mechanical ventilation systems, pediatrics and associated monitors, also the study of basic pulmonary functions.
Prerequisite(s): RES 131

RES 142 BASIC PEDIATRIC CARE (2-0-2.0)
This course includes an introduction to basic pediatric and neonatal respiratory care.
Prerequisite(s): RES 141, RES 152

RES 151 CLINICAL APPLICATIONS I (0-15-5.0)
This course covers the fundamental respiratory care procedures in the hospital setting.
Prerequisite(s): AHS 104, RES 101, RES 121

RES 152 CLINICAL APPLICATIONS II (0-9-3.0)
This course includes practice of respiratory care procedures in the hospital setting.
Prerequisite(s): RES 151

RES 204 NEONATAL/PEDIATRIC CARE (3-0-3.0)
This course focuses on cardiopulmonary physiology, pathology, and management of the newborn and pediatric patient.
Prerequisite(s): Completion of first year semester courses

RES 232 RESPIRATORY THERAPEUTICS (2-0-2.0)
This course is a study of specialty areas in respiratory care, including rehabilitation.
Prerequisite(s): RES 141, RES 152
RES 244 ADVANCED RESPIRATORY SKILLS I (3-3-4.0)
This course includes an in-depth study of mechanical ventilation and considerations for management of the critical care patient.
Prerequisite(s): Completion of first year semester courses

RES 245 ADVANCED RESPIRATORY SKILLS II (1-3-2.0)
This course includes an in-depth study of pulmonary function and other considerations for pulmonary patients.
Prerequisite(s): RES 244

RES 246 RESPIRATORY PHARMACOLOGY (2-0-2.0)
This course includes a study of pharmacologic agents used in cardiopulmonary care.
Prerequisite(s): RES 123, RES 204, RES 244, RES 265

RES 255 CLINICAL PRACTICE (0-15-5.0)
This course includes clinical training with emphasis on intensive care.
Prerequisite(s): RES 141, RES 152

RES 265 ADVANCED CLINICAL APPLICATIONS I (0-9-3.0)
This course includes advanced clinical training in respiratory care.
Prerequisite(s): Completion of first year semester courses

RES 275 ADVANCED CLINICAL PRACTICE (0-15-5.0)
This course includes clinical practice in advanced patient care procedures.
Prerequisite(s): RES 123, RES 204, RES 244, RES 265

*SOC 101 INTRODUCTION TO SOCIOLOGY (3-0-3.0)
This college transfer course emphasizes the fundamental concepts and principles of sociology, including culture, socialization, interaction, social groups and stratification, effects of population growth and technology in society, and social institutions.

*SOC 102 MARRIAGE AND THE FAMILY (3-0-3.0)
This college transfer course introduces the institutions of marriage and the family from a sociological perspective. Significant forms and structures of family groups are studied in relation to current trends and social change.
Prerequisite(s): None

*SOC 206 SOCIAL PSYCHOLOGY (3-0-3.0)
This college transfer course examines the behaviors of individuals in interaction in terms of the personality system (attitudes, needs, traits, feelings, learning, and perception), the social system (relations between/among persons), and the cultural system (agreed-upon ideas about the social and non-social world).
Prerequisite(s): SOC 101

*SPA 101 ELEMENTARY SPANISH I (3-1-4.0)
This college transfer course is a study of the four basic language skills: listening, speaking, reading, and writing, including an introduction to the Spanish culture.
*SPA 102 ELEMENTARY SPANISH II (3-1-4.0)
This college transfer course continues development of the basic language skills and the study of the Spanish culture.
Prerequisite(s): SPA 101

*SPC 205 PUBLIC SPEAKING (3-0-3.0)
This college transfer course is an introduction to principles of public speaking with application of speaking skills.

SUR 101 INTRODUCTION TO SURGICAL TECHNOLOGY (4-3-5.0)
This course includes a study of the surgical environment, team concepts, aseptic technique, hospital organization, basic instrumentation and supplies, sterilization, principles of infection control, and wound healing.

SUR 102 APPLIED SURGICAL TECHNOLOGY (2-9-5.0)
This course covers the principles and application of aseptic technique, the perioperative role, and medical/legal aspects.

SUR 103 SURGICAL PROCEDURES I (3-3-4.0)
This course is a study of a system to system approach to surgical procedures and relates regional anatomy, pathology, specialty equipment, and team responsibility. Patient safety, medical/legal aspects, and drugs used in surgery are emphasized.
Prerequisite(s): SUR 101, SUR 102, SUR 108

SUR 104 SURGICAL PROCEDURES II (3-3-4.0)
This course is a study of the various specialties of surgical procedures.
Prerequisite(s): SUR 103, SUR 109, SUR 110

SUR 108 SURGICAL ANATOMY I (3-0-3.0)
This course includes the study of the structures of the human body and the normal function of its generalized systems. Special emphasis is placed on surgical anatomy.

SUR 109 SURGICAL ANATOMY II (3-0-3.0)
This course includes the study of the structures of the human body and the normal function of its specialized systems. Special emphasis is placed on surgical anatomy.
Prerequisite(s): SUR 101, SUR 102, SUR 108

SUR 110 INTRODUCTION TO SURGICAL PRACTICUM (0-15-5.0)
This course is an introduction to the application of surgical technique by assisting in the perioperative roles in various clinical affiliations.
Prerequisite(s): SUR 101, SUR 102, SUR 108

SUR 113 ADVANCED SURGICAL PRACTICUM (0-18-6.0)
This course includes a supervised progression of surgical team responsibilities and duties of the perioperative role in various clinical affiliations.
Prerequisite(s): SUR 103, SUR 109, SUR 110

SUR 120 SURGICAL SEMINAR (2-0-2.0)
This course includes the comprehensive correlation of theory and practice in the perioperative role.
Prerequisite(s): SUR 103, SUR 109, SUR 110
TEX 101  FUNDAMENTALS OF TEXTILES (3-0-3.0)
This course covers the fundamentals of textiles, including nomenclature of machinery and processes from opening through finished product. Emphasis is placed on description and formation of polymers, fibers, yarns and fabrics; dyeing, finishing, chemistry and physics of textile fibers and polymers; and testing and marketing of products.

TEX 102  TEXTILE FIBER PROCESSING (3-0-3.0)
This course is a study of the fiber processing systems required to transform various fibrous materials into yarn. This course involves the fundamental purpose, theory and practice calculations of each process machine with emphasis on machinery and equipment available on the present market.
Prerequisite(s): TEX 101

TEX 111  TEXTILE PROCESS-FIBER/SPIN (1-3-2.0)
This course is a survey of machinery and processes of textile manufacturing from fiber formation through the spinning operation.

TEX 112  TEXTILE PROCESS-WEAVE/FINISH (1-3-2.0)
This course is a survey of the machinery and processing of textile manufacturing from the weaving operation through the finishing operation.
Prerequisite(s): TEX 111

TEX 115  MANAGEMENT SAFETY (3-0-3.0)
This course is a study of the managerial safety fundamentals and the relationship to the economics of accident prevention. Promotion of safe practices include mechanical safeguards, fire preventive housekeeping, occupational devices, first aid, safety organization protection equipment, and the analysis of accident causes.

TEX 121  TEXTILE ENGINEERING (3-3-4.0)
This course involves the application of time study, standard data development and formula construction, work sampling principles, and studies. The history and techniques of analyzing, and then measuring and applying normal time values to textile operations to develop a "questioning attitude" are also studied.

TEX 201  TEXTILE MANUFACTURING (4-0-4.0)
This course is an outline of the manufacturing process, including basic raw materials and the physical and chemical properties of synthetic and natural fibers. The handling of both staple and filament type synthetic fibers in blends with other synthetic fibers or with natural fibers is covered.

TEX 202  TEXTILE TECHNOLOGY (4-0-4.0)
This course is a study of the fabric formation techniques and is designed to explore the principles and theories of modern technology, including evaluation and analysis of weaving, knitting and non-woven fabrication of textile structures.

TEX 231  TEXTILE MANAGEMENT (3-0-3.0)
This course is a study of managing, planning and controlling production and service operations, with emphasis on demand forecasting, aggregate planning, production scheduling, inventory management and quality control.
TEX 233 TEXTILE SUPERVISION (3-0-3.0)
This course covers the principles, concepts and techniques concerned with effective and efficient utilization of personnel. Emphasis is placed on leadership and human behavior as they related to employer-employee relationships.

TEX 241 PLANT LAYOUT AND DESIGN (2-3-3.0)
This course is a survey of the essentials necessary for textile process implementation from the pilot plant concept to a functioning textile process facility. Emphasis is placed on material flow requirements, machinery layout, facility design, and inventory control.

THE 101 INTRODUCTION TO THEATRE (3-0-3.0)
This course includes the appreciation and analysis of theatrical literature, history, and production.

WLD 102 INTRODUCTION TO WELDING (1-3-2.0)
This course covers the principles of welding, cutting, and basic procedures for safety in using welding equipment.

WLD 103 PRINT READING I (1-0-1.0)
This is a basic course which includes the fundamentals of print reading, the meaning of lines, views, dimensions, notes, specifications, and structural shapes. Welding symbols and assembly drawings as used in fabrication work are also covered.

WLD 105 PRINT READING II (1-0-1.0)
This course includes print reading, including welding symbols and their applications to pipe fabrication. Basic sketching of piping symbols, single line and double line pipe drawings, material estimating, template layout and how templates are used in pipe layouts are included.
Prerequisite: WLD 103

WLD 106 GAS AND ARC WELDING (2-6-4.0)
This course covers the basic principles and practices of oxyacetylene welding, cutting, and electric arc welding. Emphasis is placed on practice in fundamental position welding and safety procedures.

WLD 113 ARC WELDING II (2-6-4.0)
This course is a study of arc welding of ferrous and/or non-ferrous metals.

WLD 115 ARC WELDING III (2-6-4.0)
This course covers the techniques used in preparation for structural plate testing according to appropriate standards.

WLD 117 SPECIALIZED ARC WELDING (2-6-4.0)
This course covers arc welding processes for industrial purposes.

WLD 132 INERT GAS WELDING FERROUS (2-6-4.0)
This course covers set up and adjustment of equipment and fundamental techniques for welding ferrous metals.
WLD

WLD 136 ADVANCED INERT GAS WELDING (0-6-2.0)
This course covers the techniques for all positions of welding ferrous and non-ferrous metals.

WLD 154 PIPE FITTING & WELDING (3-3-4.0)
This is a basic course in fitting and welding pipe joints, either ferrous or non-ferrous, using standard processes.

WLD 208 ADVANCED PIPE WELDING (2-3-3.0)
This course is a study of advanced pipe welding. It also covers the processes to fit and weld ferrous and non-ferrous metals.

WLD 212 DESTRUCTIVE TESTING (1-3-2.0)
This course covers the destructive testing methods used in the evaluation of welds.
Faculty and Staff

ABRAMS, MARGARET W., Writing Center Director/English Instructor (B.A., English, St. Andrews Presbyterian College; M.A.T., Education, Northwestern University)

ABSHER, LISA W., Administrative Specialist, IBT/Continuing Education

ADAIR, A. JUDY, Administrative Specialist, Tech Prep and Development Office

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BHATTI, AMJAD M., Instructor, Chemistry (B.S., Physical Science, Panjab University, Chandigarh, India; M.S., Organic Chemistry, Punjabi University, Patiala, India; Ph.D., Punjabi University, Patiala, India)

BLACKWELL, JO ANN, Administrative Specialist, Purchasing

BOURGEOIS, JACK R., Budget Analyst (B.A., Business, Furman University; M.B.A., Clemson University)

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BRIDGES, ROBIN M., Printing Operator

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BULMAN, THOMAS F., Superintendent of Buildings & Grounds

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CANNON, DOROTHY H., Data Entry Operator, Computer Services

CANTRELL, JO ELLEN, Dean, Student Services Division (B.S., Business Administration, Winthrop College; M.B.A., Clemson and Furman Universities)

CANTRELL, LAURA J., Administrative Specialist, Student Services

CASH, BETTY S., Instructor, Transitional Studies - Writing Laboratory (B.S., Secondary Education, University of South Carolina - Spartanburg)

CASH, LISA D., Publications Coordinator (B.A., Mass Communication, Winthrop College)

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CHAMPION, CYNTHERIA K., Administrative Specialist, Business Office

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COCHRAN, ROBIN R., Executive Specialist, Business Affairs

COCHRUM, LOUIE A., Instructor, Machine Tool Technology (Experience: Industry, 11 Years; Teaching, 5 Years)

COFFER, JAY T., Instructor, Automated Manufacturing Technology (Associate Degree, Industrial Electronics Technology, Spartanburg Technical College; Experience: Industry, 4 Years; Teaching 4 Years)

COHEN, SHIRLEY G., Administrative Specialist, Business Division

COOPER, MARY M., Instructor, English (B.A., English/History, Columbia College; M.Ed., English, Converse College)

CRAWFORD, DIANNE D., Administrative Specialist, Special Schools

CROCKER, SUSAN H., Personnel Specialist

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DANIEL, SALLY P., Administrative Assistant to the President

DECKER, ARTHUR L., Admission Services Coordinator (B.S., Business Administration Management, University of South Carolina)

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DILL, JACK, Trades Craftsman, Physical Plant

DILL, VICKIE L., Instructor, Transitional Studies - Reading (B.A., English, Limestone College; M.Ed., Reading, University of South Carolina)
Faculty and Staff

DILLARD, JOHN W., Instructor, Industrial Electronics Technology (BSEE, University of South Carolina; MSEE, Stevens Institute of Technology)

DILLENBECK, BRUCE L., Instructor - History/Government (B.A., American Studies/History, University of South Florida; M.A., American History, University of South Florida; PH.D., History, Florida State University)

DIVVER, W. THOMAS, Instructor - Physics/Mathematics (B.S., Physics, Wofford College; M.S., Physics, University of Georgia; Ed.D., Curriculum and Instruction, University of South Carolina)

DOBBINS, BECKY E., Administrative Specialist, Engineering Technology Division

DRAKE, PHYLLIS G., Department Head, English Composition, Literature & Speech (B.A., Elementary Education, Limestone College; M.A.T., English, Converse College)

DROEGE, SCOTT B., Instructor, Respiratory Care (A.S., Respiratory Therapy, Belleville Area College; B.S., Respiratory Therapy, University of Missouri)

DUBAY, ROLAND C., Director of Development (B.A., Political Science; M.A., Management, University of South Carolina)

DYAL, DALE A., Coordinator, Interpreter Training Program (A.A., Florida Community College; B.A., Special Education, University of North Florida)

EAKER, REGINA J., Director of Administrative Services (B.S., Management, Limestone College)

EDWARDS, NATALIA F., Instructor, Medical Secretary/Ward Secretary (Certificate, Ward Secretary, Spartanburg Technical College)

ELLIS, CAROLINE L., Administrative Specialist, Student Services

FAULKNER, STEVEN W., Dean, Engineering Technology Division (B.S., Industrial Engineering, Clemson University; M.Ed., Math, Converse College)

FOSTER, FELICIA C., Administrative Specialist, Book Inn

FOWLER, ANGELA P., Administrative Specialist, Student Financial Aid

FOWLER, NORWOOD, Public Safety Officer
Facultv and Staff

FOX, JOSEPH L., Instructor, Business (B.S., Pfeiffer College; M.B.A., Western Carolina University)

FUSSELL, ROBERT C., Instructor, Electronics Engineering Technology (Associate Degree, Engineering Electronics, Valparaiso Technical Institute; BSEE Electronics Engineering, Valparaiso Technical Institute)

GALLEN, PETE C., Director of Computer Services (B.S., Computer Science, Appalachian State University)

GARRETT, SHEILA O., Dean, Arts and Sciences Division (B.A., English, Winthrop College; M.Ed., Secondary Education, English, University of South Carolina)

GARRISON, BARBARA, Coordinator, Cooperative Program for Sensory Impaired (B.A., Education, Limestone College; M.Ed., Deaf Education, Converse College)

GILES, HENRY C., Jr., Vice President for Academic Affairs (B.A., Mathematics, Wofford College; M.A.T., Mathematics, Converse College)

GILLIAM, ELIZABETH L., Administrative Specialist, Placement

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GOFORTH, HERBERT F., Instructor, Heating, Ventilation & Air Conditioning (Associate Degree, Climate Control Technology, Spartanburg Technical College; Experience: Industry, 1 Year; Teaching, 4 Years)

GOSSETT, CAROLYN B., Secretary/Disbursement Clerk, Business Office

GOWAN, NANCY C., Accounting Technician, Business Office

GRAHAM, SUSAN A., Dean, Business Division (B.S., Dietetics/Biology & Chemistry, Western Michigan University; M.P.H., Health Administration, University of North Carolina, Chapel Hill, NC)

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GREENE, PAT H., Data/User Coordinator, Computer Services

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GRIZZLE, JIM M., Master Craftsman, Physical Plant

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HAGAN, PAM V., Counselor/College Transfer Coordinator (B.S., Psychology, College of Charleston; M.Ed., Secondary School Guidance/Counseling, University of South Carolina)

HALL, BOBBIE U., Women’s Center Counselor (B.S., Psychology, Lander College; M.Ed., Guidance/Counseling, Clemson University)

HARRIS, K. BRUCE, Assistant Financial Aid Coordinator (B.A., Economics, Wofford College)

HARRISON, CAROL B., Instructor, Transitional Studies and Educational Specialist for the Hearing Impaired (B.S., Elementary Education, The Women’s College of Georgia; B.S., Deaf Education, Emory University)

HAWES, MARILYN, Administrative Specialist, Physical Plant

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MCABEE, DOUGLAS L., Instructor, Horticulture (Associate Degree, Horticulture, Spartanburg Technical College; B.A. Horticulture/AG Education, Clemson University)

MCBRIDE, TIMOTHY R., Instructor, Mathematics (B.A., Math, Wofford College; M.S., Math, Clemson University)

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Educational Research/Statistics, University of South Carolina)

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POWELL, BILLY L., Procurement Officer
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RUSHING, TOM, Support Services Specialist (A.A., Theology, Sanford University)

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SILTZER, RONALD A., Instructor - Economics/Government (B.A., Economics, Wofford College; M.A.T., Social Sciences, Converse College)

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SMITH, MYRA H., Accounting Manager (A.A.S., Business Administration, Spartanburg Technical College)

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STOKLEY, SUE E., Department Head, Math & Sciences (B.S., Mathematics, Longwood College; M.S., Mathematics, Radford University; Ed.D., University of South Carolina)

STONE, PETER L., Instructor, Marketing (B.S., Business Administration/Marketing, Baptist College of Charleston)

SUTTLES, BARBARA, L., Administrative Specialist, Administrative Services
Faculty and Staff

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THOMPSON, JO ELLA, Administrative Specialist, Success Network

TILLOTSON, SHIRLEY M., Department Head, Office Systems Technology (B.A., Education, University of South Carolina; M.Ed., Business Education, University of South Carolina)

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TURNER, PAUL E., Instructor, Industrial Maintenance Mechanics (Journeyman Apprenticeship Millwright, Experience: Industry, 19 Years)

ULLERY, ANNE, Administrative Specialist, Student Services

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VAN ALPHEN, ALBERT, Evening Director (B.A., English/German, University of Southern Mississippi; M.A. English/German, University of Mississippi; Ph.D. English/German, Louisiana State University)

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VOELKER, PATRICIA H., Department Head, Child Development Assisting (B.S., Recreation and Psychology, North Carolina State University; M.Ed., Early Childhood Education, University of South Carolina)

WALKER, LYNN H., Department Head, Dental Assisting (A.A., Liberal Arts, Spartanburg Methodist College; B.S., Management of Human Resources, Central Wesleyan College; Dental Assisting, University of North Carolina; Certified by the Dental Assisting National Board as a Certified Dental Assistant and a Certified Dental Practice Management Assistant)
WALKER, STEVEN A., Continuing Education Training Specialist (B.A., History, Wofford College; M.B.A., Clemson University)

WATTS, JOHN R., Department Head, Mechanical Engineering Technology and Engineering Graphics Technology (B.S., Mechanical Engineering, Clemson University)

WEBSTER, KENNETH B., Instructor, Engineering Graphics Technology (B.S., Biology, Pennsylvania State College; B.S., Industrial Management, University of Pennsylvania)

WEEKS, RITA B., Instructor, English (B.S., English, Illinois State University; M.S., Library & Information Studies, Florida State University)

WHITMORE, JAMES R., Supply Specialist, Physical Plant

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WILBURN, REGINALD F., Placement Coordinator (B.A., Business Administration, Furman University)

WILKINS, COBY, Electronics Technician, Computer Services

WILLIS, ELSIE A., Instructor, Practical Nursing (B.S., Nursing, South Carolina State College)

WILSON, BARBARA J., Executive Specialist, Academic Affairs

WILSON, TED B., Continuing Education Coordinator (B.A., English, Clemson University, M. Ed., University of South Carolina)

WINDHAM, DONNA T., Director of Marketing/Foundation (B.A., Communications/Public Affairs and Government, Mount Vernon College)

WINKLER, SANDRA J., Curriculum Developer (B.S., Economics and Business; M.A., Student Personnel, Appalachian State University)

WOOD, KERRY K., Instructor, Automotive Technology (A.A.S., Vocational Technical Education, Spartanburg Technical College; Experience: Military, 21 Years; Industry, 9 years; Teaching, 21 Years)
Faculty and Staff

WORTHY, RODERICK R., Audio Visual Technician

YARBROUGH, JOHNNY R., Property & Inventory Control Specialist, Physical Plant

YOUNG, WALTINA, Department Head, Social Sciences (B.A., Social Science/Music, Johnson C. Smith; M.A., Education/History, Furman University)
Student Organizations

Student Government Association
American Society of Certified Engineering Technicians (ASCET)
Caravanserai (Drama Club)
Data Processing Management Association (DPMA)
Collegiate Secretaries International (CSI)
Horticulture Club
Lola Imi Proto
Respiratory Care Club
Science Club
Tau Alpha Pi National Honor Society for Engineering Technology, Mu Gamma Chapter
Phi Beta Lambda, Delta Beta Lambda Chapter
Afro-American Association
Rezoomers (Single Parent/Homemaker Club)
Women's Center Alumni Association
Quality Education for Quality Careers

Spartanburg Technical College does not discriminate on the basis of race, color, religion, age, sex, national origin/ethnic origin or disability in its admissions policies, programs, activities or employment practices.