Vision: To provide an excellent school system empowering students to reach their potential through academics, arts, and athletics.
Dear Parents and Students:

This course catalog contains information about all areas of our secondary academic program. From dual-credit courses to art-infused curriculum, we offer an abundance of course selections for all Anderson Five students.

With multiple campuses available for students to attend, we aim to ensure that all students are provided a quality education in a safe environment. If you should have any questions regarding our course selections, please do not hesitate to contact a school counselor. Our goal with this publication is to make sure that parents and guardians are aware of the educational opportunities that exist in Anderson Five, and we appreciate any feedback from those that we serve.

On behalf of our Board of Trustees, I welcome you to the 2020-2021 school year, and I look forward to building upon our record of academic success and excellence.

Sincerely,

Thomas A. Wilson
Superintendent
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INTRODUCTION

The Anderson School District Five Program of Studies offers a broad range of coursework designed to provide opportunities for students to complete the required courses for graduation, to obtain admission to the two-year or four-year colleges of their choice, and to fulfill personal interests. Students will be able to complete a rigorous academic program and select technical and academic courses as electives.

As parents and students review this catalog and begin to design a program of studies, they will recognize that each major offers many possibilities.

Disclaimer: Anderson School District Five has made every effort to ensure that the information in this catalog is informative and accurate. However, new statutes and regulations may impact, negate, or change the implementation of the programs and/or courses described. This catalog should in no way be seen as a contract, but as guidelines for students as they move through their high school careers.

DESIGNING A PROGRAM OF STUDIES

Appropriate course selection is crucial in ensuring a successful and productive high school career. This course catalog provides course selection information and assists students in planning for grades nine through twelve. Please review this information carefully. Students and parents will have opportunities to work with a school counselor to select a major and plan a four-year course outline. Each year this plan will be reviewed and revisions will be made if necessary. Students may change majors at any time.

The primary goal of Anderson School District Five is to meet the educational needs of all students. In order to accomplish this goal, it is our responsibility to provide a high quality, rigorous instructional program, to encourage all students to enroll in classes which will be challenging, and to enable them to reach their highest level of achievement. To assist in student course registration, school counselors will review the students’ academic and test records, and the courses selected on the registration form completed by the students and their parents. Students who have not met the minimum level of achievement on state testing programs will be placed in classes in which appropriate instruction can be provided. Students desiring to register for a course above the recommended level must have a parent contact their school counselor to schedule a conference.

All high school students, except seniors with prior approval, must register for eight courses each year. This will allow them to earn units beyond the state graduation requirements. Students may register for courses offered at their home campus, Southwood Academy of the Arts, and the Anderson Institute of Technology (AIT). Transportation to and from the satellite campuses will be provided by the district. Enrollment will determine course offerings on each campus.

COURSE REGISTRATION

All students, in consultation with their parents and school counselors or advisors, will select appropriate courses each year from their chosen major.

Sophomores, juniors, and seniors will carefully design their schedules to include course selections necessary to reach their educational goals and areas of interest.

During registration, students will select eight courses and identify alternate elective course choices. Careful consideration should be taken in selecting an alternate, or second choice of electives, in the event first choices are not available. Pacing courses over the four years is imperative so students do not have large gaps between core courses; for instance, it would not be advisable for a student to omit English, math, science, social studies and/or world languages from his or her senior schedule.

Freshmen should register for the following courses:

- English ................................................. 1 unit
- Math .................................................... 1 unit
- Science ................................................ 1 unit
- Social Studies ...................................... 1 unit
- College and Career Readiness ............. 1 unit
- *Electives ........................................... 3 units

*Physical Education or JROTC is highly recommended.

Students are strongly encouraged to take at least one of each core course (English, math, science, and social studies) for each year that they are enrolled.
GENERAL INFORMATION

SOUTH CAROLINA HIGH SCHOOL DIPLOMA COURSE REQUIREMENTS
To receive a South Carolina High School Diploma, a student must complete twenty-four units of study. The following are course requirements prescribed by the State Board of Education for high school graduation.

- English/Language Arts ...................... 4 units
- Mathematics .................................. 4 units
- Science ........................................ 3 units
- U.S. History & Constitution .............. 1 unit
- Economics .................................... 0.5 unit
- U.S. Government .............................. 0.5 unit
- Other Social Studies ........................ 1 unit
- Physical Education or JROTC .......... 1 unit
- World Language or Career
  and Technology Course ...................... 1 unit
- Computer Science ............................ 1 unit
- Additional Electives ........................ 7 units

TOTAL ........................................ 24 units

By order of the General Assembly of South Carolina, high schools must offer a Comprehensive Health Education Program. Each student shall receive instruction in Comprehensive Health Education that includes Reproductive Health Education and Pregnancy Prevention Education. Comprehensive Health Education is provided through Physical Education classes. Parents may review instructional materials at the school. If the program conflicts with the family’s beliefs, an exception may be requested.

ADMISION REQUIREMENTS FOR POST-SECONDARY INSTITUTIONS
All public and private colleges, universities, and technical colleges adhere to admission standards. Students should refer to college catalogs for specific admission procedures and course requirements or seek the assistance of a school counselor in determining these requirements. Students should always take the highest level courses they are capable of completing successfully. Students and parents may also reference the Commission on Higher Education at https://www.che.sc.gov.

Minimum diploma requirements do not prepare a student for admission to college. The responsibility for meeting course and graduation requirements rests with each individual student.

GRADE CLASSIFICATION
9th Grade: A student entering high school for the first time is considered a ninth grader.
10th Grade: To be classified as a sophomore, a student must have earned a minimum of 5 units of credit, including 1 English unit, 1 math unit, and 3 additional units.
11th Grade: To be classified as a junior, a student must have earned a minimum of 11 units of credit, including 2 English units, 2 math units, 1 science unit, and 6 additional units.
12th Grade: To be classified as a senior, a student must have earned a minimum of 16 units of credit, including 3 English units, 3 math units, 2 science units, and 8 additional units.

NINTH GRADE ACADEMY
The ninth grade academy is a smaller learning community within the high school, designed to ease the transition from middle to high school for rising ninth graders. The majority of the classes are clustered in a designated wing of each high school. Academic and social support is offered through mentoring, teaming, and incentive programs for good grades, attendance, and citizenship.

SPECIAL EDUCATION CURRICULUM
The district Special Education Program provides curricula tailored to the needs of the individual students served in resource, inclusion, itinerant, and self-contained models. Qualification for these programs is based on criteria mandated by federal law, state regulations, and district policy. A multi-disciplinary committee determines whether a student meets the criteria for placement into a program and develops an individualized education plan (IEP) which outlines the educational goals, accommodations, modifications and services provided for each student.

CLASS RANK
Class rank is one of the most important factors determining college admission. For each student, the ranking will be computed using the final grade in each course in ninth through twelfth grades, including high school credit bearing courses taken in eighth grade.
STATE END-OF-COURSE TESTS
The state mandates end-of-course testing for specified courses. Scores from these tests will count 20 percent of each student's grade in that course.

State end-of-course tests are currently given in English 2, Algebra 1, Biology 1, and U.S. History and Constitution.

WITHDRAWING FROM A COURSE
With the first day of enrollment in the course as the baseline, students who withdraw from a course within three days in a 45-day course, five days in a 90-day course, or ten days in a 180-day course will do so without penalty.

Students who withdraw from a course after the specified time of three days in a 45-day course, five days in a 90-day course, or ten days in a 180-day course shall be assigned a WF, and the F (as a 50) will be calculated in the student's overall grade point average.

The three-, five-, and ten-day limitations for withdrawing from a course without penalty do not apply to course or course-level changes approved by the administration of a school. Withdrawal limitations for distance learning courses will be established by local districts.

Students who drop out of school or are expelled after the allowed period for withdrawal but before the end of the grading period will be assigned grades in accordance with the following policies:

- The student will receive a WP if he or she was passing the course. The grade of WP will carry no Carnegie units and no quality points to be factored into the student's GPA.

- The student will receive a WF if he or she was failing the course. The grade of WF will carry no Carnegie units but will be factored into the student's GPA as a 50.

RETAKING A COURSE
Students in grades nine through twelve may retake a course at the same level of difficulty if they have earned a C, D, or an F in that course. The student's record will reflect all courses he or she has taken and the grades he or she has earned.

The student may retake the course either during the current school year or during the next school year but no later than that second year. In addition, the student must retake the course before he or she has enrolled in the next sequential course. The student's transcript will reflect both course instances. Only one course attempt and the highest grade earned for the course will be calculated in the GPA.

A student who has taken a course for a unit of high school credit prior to his or her ninth grade year may retake that course regardless of the grade he or she has earned. A student who retakes a high school credit course from middle school must complete it before the beginning of the second year of high school. In such a case, only the highest grade will be used in figuring the student's GPA.

ADVANCED PLACEMENT
Advanced Placement (AP) is a program that offers college-level curricula and examinations to high school students. Universities and colleges often grant placement and course credit to students who obtain high scores on the examinations. Advanced Placement that is awarded based on AP Exam scores allows students to skip introductory classes, enter higher-level classes, or fulfill general education requirements. Students are strongly encouraged to visit college/university websites or talk with admissions officers to find out specific policies for earning and using AP credit at the different colleges and universities they are considering.
GENERAL INFORMATION

SOUTHWOOD ACADEMY OF THE ARTS
Anderson School District Five students have the opportunity to attend Southwood Academy of the Arts – a Creative and Performing Arts Middle School and Fine Arts Campus for High School. Classroom instruction is based on state and national standards. In addition to core curriculum, students will receive specialized instruction in art, drama, music composition, band, strings, chorus, and dance.

Entry Criteria:
To be a high school student at Southwood Academy of the Arts a student must:

1) Audition for visual and performance classes. Open auditions will be held March 26, 2020 at 4:30 pm. No audition required for Concert Choral Music 1, Guitar 1, Music Production 1, or Piano 1.
2) Have and maintain a GPA of 2.0 or higher in all classes.
3) Have no patterns of serious discipline infractions as determined by the arts review committee.
4) Demonstrate active participation and performance in Southwood Academy classes as determined at the year-end review by the arts committee.

(See pages 35-38 for the Visual & Performing Arts courses offered at Southwood Academy of the Arts.)

ANDERSON INSTITUTE OF TECHNOLOGY
Anderson Institute of Technology (AIT) is an innovative technical center offering secondary programs in many different areas of study. Student enrollment in AIT will be on a first-come, first-served basis with all students being required to have successfully completed Algebra 1 and English 1. Some of the science-based courses may require successful completion of Biology.

Instruction at AIT will include limited faculty lecture with a focus on hands-on projects in a lab environment. Students who have an interest in attending AIT should meet with their counselor, along with their parents/guardians, to develop an Individual Graduation Plan (IGP) that includes a program of study at AIT beginning in the 10th grade. AIT will work in partnership with local and national universities and technical colleges to provide students the opportunity for dual credit.

(See pages 39-59 for the courses offered at AIT.)

DUAL CREDIT COURSES
In partnership with Anderson University and Tri-County Technical College, Anderson School District Five will allow students to earn dual credit for certain college courses. Dual credit courses are college courses taken during high school for which the student receives both high school and college credit. Students must meet all college enrollment requirements at the participating colleges to be able to participate in the dual credit courses.

Dual credit courses are college courses taught by college faculty. Dual credit courses are for motivated students who have the academic and personal maturity to handle the rigor of a college course. Please note that the college instructors develop the syllabus, course content, teaching methodology, grading scales and procedures for these courses. If the student finds that he or she is not prepared for the course, dual credit courses may be dropped by the drop date determined by the college or university. As in most college courses, a minimum number of students must be registered for a dual credit course in order for the course to be held. If the minimum number is not met, the course may be cancelled. Students should always have an alternate plan if a course is cancelled.

A student wishing to take a college level course after school hours or during the summer may do so on his or her own, however this will not count on the high school transcript without prior written administrative authorization.

Students and parents should be aware that there is a cost for dual credit courses.

(See pages 60-64 and 66 for the courses that are approved for dual credit.)
Students enrolled in South Carolina high schools have the opportunity to earn one or more graduation Seals of Distinction within each diploma pathway that identifies a particular area of focus, beginning with the freshman class of 2018-2019.

Students must meet all requirements set forth in State Board Policy R43-234: State Graduation Requirements related to earning a high school diploma. Students are not required to earn a Seal of Distinction in order to receive a high school diploma.

English I, II, III, IV or higher-level substitutes (AP, IB, or Dual Credit) must be taken to earn all Seals of Distinction.

Changes to the following criteria may continue to be made by the South Carolina Department of Education. Students will need to meet the up-to-date criteria set forth by the SCDE in order to earn the Seals of Distinction. This document serves as a guide only.

**HONORS SEAL OF DISTINCTION**

A. **English I-IV:** At least two courses at the honors level or higher.

B. **Mathematics:** Algebra I, Geometry, and Algebra II at the honors level or higher and a fourth honors or above mathematics course with Algebra II as a prerequisite.

C. **Science:** Three units of a lab science including at least one course in biology and one course in chemistry and a third course with biology and chemistry as a prerequisite. At least two of the science courses must be at the honors level or higher.

D. **Social Studies:** Three units of social studies including U.S. History and Government/Economics and a third course of the student’s choice with at least two at the honors level or higher.

E. **World Language:** Two world language courses in the same language other than English for class of 2018-2019 9th graders. Three world language courses in the same language other than English for 2019-2020 entering 9th graders and beyond.

F. **Advanced Coursework:** At least four higher-level courses during junior and/or senior years which carry quality points at the honors, Advanced Placement, International Baccalaureate or Dual Enrollment level. **Note:** Honors and dual credit CATE courses as well as Project Lead the Way courses are included.

G. **GPA:** A UGP GPA on the State Uniform Grading Scale of 3.5 or higher.

**COLLEGE-READY SEAL OF DISTINCTION**

A. **Mathematics:** Algebra I or equivalent, Geometry, and Algebra II with a fourth mathematics course with Algebra II as a prerequisite. No honors math credits required.

B. **Science:** Three units of a lab science including at least one course in biology and one course in chemistry and a third lab science with biology or chemistry as a prerequisite. **Note:** South Carolina’s physical science course is not counted as a lab science by the Commission on Higher Education.

C. **Social Studies:** Three units of social studies including U.S. History and Government/Economics and a third course of the student’s choice.

D. **World Language:** At least two world language courses in the same language other than English.

E. **Fine Arts:** At least one fine arts course.

F. **GPA:** A UGP GPA on the State Uniform Grading Scale of 3.0 or higher.

**OR**

A composite score of 20 on the ACT.

**OR**

A combined math and evidenced-based reading/writing score of 1020 on the SAT.
CAREER SEAL OF DISTINCTION

A. **Mathematics:** Algebra I, Geometry, and Algebra II or customized math sequence and a fourth math course aligned to post-secondary career goals.

B. **Science:** Three units of science with at least one course in biology and two courses (including applied science courses) tied to post-secondary career goals.

C. **Career and Technical Education:** Completion of a major (four aligned courses within a career cluster designated by the district as part of the EEDA) in one of the following national career clusters:
   1. Agriculture, Food and Natural Resources
   2. Architecture & Construction
   3. Arts, A/V Technology & Communications
   4. Business Management & Administration
   5. Finance
   6. Government & Public Administration
   7. Health Science
   8. Hospitality & Tourism
   9. Human Services
   10. Information Technology
   11. Law, Public Safety, Corrections & Security
   12. Manufacturing
   13. Marketing
   15. Transportation, Distribution & Logistics

D. **Earn at least one industry-recognized credential.**
   OR
   A Career Readiness Certificate (CRC) at the Silver or higher on WIN.
   OR
   A semester-long Work-Based Learning (WBL) placement credit.

E. **GPA:** A UGP GPA on the State Uniform Grading Scale of 2.5 or higher.

SPECIALIZATION SEAL OF DISTINCTION

This Seal of Distinction supports the Profile of the South Carolina Graduate by allowing students to concentrate in STEM, World Language, the Arts, or the Military. These requirements are in addition to the requirements of the standard diploma as set forth by State Board Policy. Only one area needs to be completed to qualify.

A. **STEM:** Four elective courses beyond the required courses in math, science, and technology with at least two courses at the honors level or higher. The four courses may be in one area of STEM or across the four areas of STEM.

B. **Military:** Four courses in JROTC and a score of 31 or higher on the ASVAB assessment.

C. **Arts:** Four elective courses in single or multiple areas of the Arts with two or more courses at the honors or AP/IB levels. Successful demonstration of mastery on an externally validated performance task (AP exam of 3 or IB exam of 4 may count if the courses are taken before the senior year).

D. **World Language:** Proficiency in a language other than English by completing a four-course concentration in the same language and/or demonstrating proficiency with a score of “Intermediate Low” or higher on the American Council for Teaching a Foreign Language (ACTFL). AP exams of 3 or higher or IB exam of 4 or higher may demonstrate proficiency if courses are taken before the senior year. Limited English Proficiency students may complete the same criteria above but also demonstrate English proficiency with a Level 5 composite score or higher on the ACCESS language proficiency test.

E. **GPA:** For all of the specialization endorsements, the student must earn a UGP GPA on the State Uniform Grading Scale of 3.0 or higher.
ACADEMIC HONORS AWARDS

SOUTH CAROLINA ACADEMIC HONORS AWARD

1. The student shall have:
   a. Completed twenty-four (24) units of high school credit as prescribed below.
   b. Be eligible for graduation with a state high school diploma.
   c. Earned a minimum grade of B for each semester course in grades 9-12 through the seventh semester.

2. Plus one of the following:
   • Earned either a score of 710 or higher on the SAT Evidence-Based Reading and Writing, a score of 690 or higher on the SAT mathematics, a score of 30 or higher on the ACT English, or a score of 33 or higher on the ACT mathematics.
   - Or -
   • Earned a combined score of 1400 on the SAT Evidence-Based Reading and Writing and math sections or an ACT composite score of 31.

ANDERSON SCHOOL DISTRICT FIVE ACADEMIC HONORS AWARD

1. Purpose
   This establishes the minimum requirements for a District Academic Achievement Honors Award.

2. Scope
   This shall apply to any student who is eligible for and receives a South Carolina high school diploma from a public secondary school in this district.

3. Criteria
   a. The student shall have completed thirty (30) units including the eighteen (18) units as approved by the State Board of Education for college preparatory programs, ten (10) additional elective units, and two additional units in one or more of the following areas: English, science, social studies, or mathematics.
   b. The student shall have earned a minimum grade of B in all courses each semester in grades 9-12.
   c. The student shall have earned a combined score of 1200 or higher on the SAT or a composite score of 25 or higher on the ACT.

Of the twenty-four units earned, eighteen units must be college preparatory coursework, four units in additional electives, and two units in one or more of the following: English, science, social studies, or mathematics.

College Preparatory Coursework includes the following:

   • English (English 1 or above) ....................... 4 units
   • Mathematics (Algebra 1 or above) ............... 4 units
   • Laboratory science ..................................... 3 units
   • Social studies (United States History and...... 3 units Constitution, economics and United States Government and one unit of world history, world geography or western civilization)
   • Foreign language ........................................ 2 units
   • Computer science ....................................... 2 units
   • Physical education ....................................... 1 unit
COURSE PROGRESSION RECOMMENDATIONS

The following are typical course progression recommendations for students in 9th – 12th grades. Students entering the 9th grade with high school credits will move on to the next level of courses in the progression. Students should see their school counselor for advisement regarding their academic needs and individual progressions.

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<th>10th Grade</th>
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<td>English 2 Literature and Composition CP</td>
<td>English 3 CP</td>
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The statewide Uniform Grading Scale below is effective for all students beginning in August 2016. The statewide Uniform Grading Scale is used in the computation of the grade point average. For information about the grade point scale for courses taken prior to August 2016 please contact your school.

<table>
<thead>
<tr>
<th>Numerical Average</th>
<th>Letter Grade</th>
<th>College Prep Weighting</th>
<th>Honors Weighting</th>
<th>AP/IB/Dual Credit Weighting</th>
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<tr>
<td>100</td>
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<td>97</td>
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COLLEGE AND CAREER READY ASSESSMENTS

Two tests for college admission are the ACT and the SAT. In addition, many two-year technical colleges require ACCUPLACER in lieu of the ACT or SAT.

READY TO WORK ASSESSMENT (WIN)
The Ready to Work assessment is a workforce education and development tool, comprised of three proctored assessments, Applied Mathematics, Reading for Information, and Locating Information, leading to a work-ready credential. It brings employers, learners/job-seekers, and education/workforce partners together in building a skilled workforce, while keeping and attracting businesses with higher-wage jobs and national economic growth.

The WIN Essential Soft Skills assessment is composed of questions measuring entry-level work tasks and behaviors, including: cooperation with others, resolving conflict and negotiation, solving problems and making decisions, observing critically, and taking responsibility for learning. The assessment items require the learner to choose two answers for each question, the “best” and “worst” answers for handling each situation.

The following certificate levels may be attained:

**Platinum: Level 6**
Successfully pass a minimum of Level 6 in all assessments to be ready for 99% of jobs in the workforce. Occupations include: architect, chemist, geographer, anesthesiologist, and agricultural engineer.

**Gold: Level 5**
Successfully pass a minimum of Level 5 in all assessments to be ready for 90% of jobs in the workforce. Occupations include: credit analyst, aircraft mechanic, medical transcriptionist, acute care nurse, and social worker.

**Silver: Level 4**
Successfully pass a minimum of Level 4 in all assessments to be ready for 65% of jobs in the workforce. Occupations include: insulation installer, roofer, chef, pipe layer, flight attendant, and machinist.

**Bronze: Level 3**
Successfully pass a minimum of Level 3 in all assessments to be ready for 35% of jobs in the workforce. Occupations include: construction laborer, electrician assistant, cement mason, and dental hygienist.

**ACCUPLACER**
Thousands of area high school juniors participate in Tri-County Technical College’s College Readiness Initiative (CRI). The CRI allows high school juniors to get exposure to a college placement assessment called ACCUPLACER, developed by College Board. ACCUPLACER is a suite of tests that determine your knowledge in math, reading, and writing as you prepare to enroll in college-level courses. It is used to identify your strengths and weaknesses in each subject area. Students will receive feedback on their performance from Tri County Tech and can design post-secondary plans with more clarity regarding their readiness for college courses. Students can access information about ACCUPLACER and download a free web-based study app through www.accuplacer.org. ACCUPLACER results are used to determine if Anderson Five students are candidates for dual credit courses through Tri-County Technical College. ACCUPLACER testing is also available at Anderson University.

**PreACT**
Administered to second year high school students, the PreACT provides students with a realistic ACT test experience. The tests gives students both current achievement and projected future ACT test scores on the familiar 1-36 ACT score scale. The PreACT can be used as an indicator of college and career readiness. Reports include data to help teachers and counselors target interventions, inform classroom instruction, and guide students in course selection.

**ACT**
The ACT assesses high school students’ general educational development and their ability to complete college-level work. The multiple-choice tests cover four skill areas: English, mathematics, reading, and science. The Writing Test, which is optional, measures skill in planning and writing a short essay. Some colleges will require that student applicants submit writing test scores, while others will not. The ACT assessment is achievement-based and tests what students have learned in high school. In addition, it provides test takers with information for career and educational planning as well as a comprehensive profile of the student’s work in high school and future plans.

The ACT is administered seven times per year nationally and is typically taken the junior or senior year. For times, registration costs and more information, please visit www.act.org.
**PSAT**
The PSAT is a practice test for the SAT. Eleventh graders may elect to take the PSAT as a National Merit Qualifying Test. There is a cost students must pay to take this test which is paid directly to the school. This test is offered once a year in October and does not qualify students for admission into college.

**SAT**
The SAT is a globally recognized college admission test that allows you to show colleges what you know and how well you can apply that knowledge. In January 2016 the test was redesigned to test skills that are more predictive of success in college and beyond. The new SAT emphasizes higher-level logical and reasoning skills.

The Reading questions are entirely passage-based giving more opportunities to test a deeper understanding of how the passage is logically constructed and to draw connections between different parts of the passage. Passages will be based on U.S. and World Literature, History/Social Studies, and Science subject matter. Some passages will contain data and require interpretation of data. There is a great emphasis on vocabulary in context, command of evidence, constructing logical arguments, and scientific reasoning. The Writing and Language portion tests grammar and writing logic. All questions are passage-based and focus on logic and expression of ideas, higher-level writing skills, and punctuation rules. The Writing and Language test is combined with the Reading section for a total maximum score of 800 points. The Math section emphasizes practical, realistic scenarios and requires students to take multiple mathematical steps to solve problems. Students are expected to interpret data and graphs, solve algebraic equations, and understand some basic trigonometry. Calculators may be used, but one section of the test does not allow for calculators. The maximum score that can be obtained on the Math test is 800 points.

The optional Essay test is 50 minutes long and provides a passage written by an author who is taking a stance on an issue. The student’s job is to analyze how the author builds the argument, including understanding how evidence and rhetorical devices contribute to the argument. The essay is scored on a scale of 2-8 on three traits: Reading, Analysis, and Writing.

The SAT is administered seven times per year nationally and is typically taken the junior or senior year. For times, registration costs and more information, please visit www.collegeboard.com.

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### SAT vs. ACT COMPARISON CHART

The SAT and the ACT are both nationally administered college entrance exams. While both exams have some similarities, they also have many differences. The SAT tends to test critical-thinking skills while the ACT tends to test straightforward knowledge. Many colleges will accept either or both exams. Some students do better on one exam than the other and many decide to take both. The chart below will help you understand the structure and content of both the SAT and the ACT.

<table>
<thead>
<tr>
<th>SAT</th>
<th>ACT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length &amp; Format</strong></td>
<td>3 hours + 50-minute essay (optional)</td>
</tr>
<tr>
<td></td>
<td>• Reading – 65 minutes, 52 questions</td>
</tr>
<tr>
<td></td>
<td>• Writing &amp; Language – 35 minutes, 44 questions</td>
</tr>
<tr>
<td></td>
<td>• Math (no calculator) – 25 minutes, 20 questions</td>
</tr>
<tr>
<td></td>
<td>• Math (with calculator) – 55 minutes, 38 questions</td>
</tr>
<tr>
<td></td>
<td>• Optional Essay – 50 minutes</td>
</tr>
<tr>
<td></td>
<td>• All questions are multiple choice except for “grid-in” math questions and optional essay</td>
</tr>
<tr>
<td><strong>Scoring</strong></td>
<td>400-1600</td>
</tr>
<tr>
<td></td>
<td>• Evidence-Based Reading and Writing: 200-800</td>
</tr>
<tr>
<td></td>
<td>• Math: 200-800</td>
</tr>
<tr>
<td></td>
<td>• Essay score reported separately</td>
</tr>
<tr>
<td></td>
<td>• “Cross-Test Scores” report performance on History/Social Studies and Analysis in Science subject areas across entire test</td>
</tr>
<tr>
<td></td>
<td>• No penalty for incorrect answers</td>
</tr>
<tr>
<td><strong>Comprehensive Score</strong></td>
<td>1-36 (average of 4 tests)</td>
</tr>
<tr>
<td></td>
<td>• English: 1-36</td>
</tr>
<tr>
<td></td>
<td>• Math: 1-36</td>
</tr>
<tr>
<td></td>
<td>• Reading: 1-36</td>
</tr>
<tr>
<td></td>
<td>• Science: 1-36</td>
</tr>
<tr>
<td></td>
<td>• Essay score (2-12) not factored into composite score</td>
</tr>
<tr>
<td></td>
<td>• No penalty for incorrect answers</td>
</tr>
<tr>
<td>Writing &amp; Language (SAT)/English (ACT)</td>
<td>SAT</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>Consists of four passages</td>
<td></td>
</tr>
<tr>
<td>Revise and edit passages to demonstrate knowledge and ability in:</td>
<td></td>
</tr>
<tr>
<td>a. Standard English grammar and usage, punctuation, and logical structure</td>
<td></td>
</tr>
<tr>
<td>b. Command of evidence</td>
<td></td>
</tr>
<tr>
<td>c. Emphasis on the meaning of words in extended contexts</td>
<td></td>
</tr>
<tr>
<td>d. Expression of ideas and analysis</td>
<td></td>
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<tr>
<td>Stronger focus on vocabulary</td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td></td>
</tr>
<tr>
<td>Pre-Algebra through basic Trigonometry</td>
<td></td>
</tr>
<tr>
<td>Strong emphasis on Algebra, problem solving, and data analysis</td>
<td></td>
</tr>
<tr>
<td>Calculator prohibited on one section</td>
<td></td>
</tr>
<tr>
<td>13 “Grid-In” questions (no answer choices)</td>
<td></td>
</tr>
<tr>
<td>Often describes real-world situations and asks students to use math knowledge to draw conclusions</td>
<td></td>
</tr>
<tr>
<td>1 Extended Thinking question (4 points)</td>
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<tr>
<td>Diagram of formulas is provided</td>
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<tr>
<td></td>
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<tr>
<td>Reading</td>
<td></td>
</tr>
<tr>
<td>Consists of five passages including:</td>
<td></td>
</tr>
<tr>
<td>a. Classic or contemporary work of U.S. or world literature</td>
<td></td>
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<tr>
<td>b. One passage or a pair of passages from a U.S. founding document or a text in the Great Global Conversation</td>
<td></td>
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<tr>
<td>c. One passage on a social science topic from a field such as economics, psychology, or sociology</td>
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</tr>
<tr>
<td>d. Two science passages that examine foundational concepts and developments in Earth science, biology, chemistry, or physics</td>
<td></td>
</tr>
<tr>
<td>Focuses on command of evidence, words in context, and reading analysis</td>
<td></td>
</tr>
<tr>
<td>Order of questions is chronological</td>
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</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td></td>
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<tr>
<td>The SAT does not have a stand-alone science section, but science questions will be included throughout the reading, math, and writing &amp; language tests.</td>
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<tr>
<td></td>
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<tr>
<td>Essay</td>
<td></td>
</tr>
<tr>
<td>Analyze a passage and evaluate the author’s reasoning and rhetoric</td>
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<tr>
<td>Student opinion is discouraged</td>
<td></td>
</tr>
<tr>
<td>Essay is scored on three traits: reading, analysis, and writing</td>
<td></td>
</tr>
<tr>
<td>Requires good reading comprehension skills</td>
<td></td>
</tr>
<tr>
<td>Optional, but required by some schools</td>
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</table>
SERVICE LEARNING
Service learning is a teaching methodology that links schools with the community. Students are given the opportunity to perform community service work that complements their classroom work. It also helps students develop civic responsibility and gives them an opportunity for career exploration. A community service project is required for all high school students enrolled in College and Career Readiness, Honors AVID 3 and 4, and students who are members of the National Honor Society. Students should keep a log of service learning, volunteerism, and community service hours to be included on scholarship and college admission applications under the category of community service. (Grades K-12)

JOB SHADOWING
Job shadowing is an educational experience that introduces a student to a particular job or career. The student is paired with an employee of a participating organization. The student shadows that employee to better understand the requirements of a particular job. Students in middle school participate in job shadowing in February during National Groundhog Shadowing Month. (Grades 7-12)

INTERNSHIP
An internship gives students an opportunity to study an occupational program directly related to career interests, such as financial services, health services, mechatronics, and/or computer technology. Students perform duties related to their occupational courses of study in workplace settings. The Teacher Cadet and the Health Science Technology Programs offer practicum internship opportunities for students interested in education and health sciences. Students in the Academy of Finance are required to participate in 120 hours of a summer internship. Students are not given an elective unit of credit for an internship. (Grades 10-12)

COOPERATIVE EDUCATION (CO-OP)
Cooperative Education is a structured program that connects school-based and work-based learning for students. This educational experience provides a rigorous and relevant core curriculum with an occupational specialty and includes a formal written educational/work-based agreement that defines specific academic and workplace skills to be mastered. Students must complete the second level of an occupational course and complete at least 180 clock hours to receive an elective unit of credit for a co-op experience. (Grades 11-12)

MENTORING
Mentoring is a relationship between a student and an adult who guides and helps the student in the workplace, especially in the area of career exploration. The mentor demonstrates the relationship between academic preparation and workplace readiness. The mentor also focuses on work ethics, professional behavior, and the soft skills that are required in a workplace. (Grades 9-12)

STRUCTURED FIELD STUDY
Structured Field Study is a career related field trip experience hosted by a representative at the targeted worksite. During the experience, students observe, ask questions, and learn from the experience of being on an actual worksite visit. Students should be well prepared by the teacher to ask questions about employment opportunities, qualifications of job roles, job descriptions, benefits associated with worksite employment, types of services provided, and general information about the place of employment and its mission. The field study should be followed up with debriefing activities such as classroom discussions, reports, and follow-up letters to the worksite hosting the experience.
ELIGIBILITY REQUIREMENTS FOR INTERSCHOLASTIC ACTIVITIES

These requirements cover activities such as athletics, chorus, orchestra, cheerleading, band, majorettes, Robotics Team, Math Team, Academic Team, Speech and Debate Team, etc. Any interschool competition is regulated by these requirements. Ninth grade students who have not earned Carnegie units must have been academically promoted from the eighth grade to be eligible for participation in the fall semester activities.

A. A student, while participating, must be a full-time student as determined by guidelines set forth by the State Department of Education. A student who is repeating a course for which he or she has previously received credit cannot count this course as one required for eligibility; this is considered as monitoring a course.

B. To participate in interscholastic athletic activities, students in grades 9-12 must achieve an overall passing average in addition to the following:

1. To be eligible in the first semester a student must pass a minimum of five Carnegie units applicable toward a high school diploma during the previous year. At least two units must have been passed during the second semester or summer school.

2. To be eligible during the second semester the student must meet one of the following conditions:
   a. If the student met first semester eligibility requirements, he or she must pass the equivalent of four, 1/2 units during the first semester.
   b. If the student did not meet first semester eligibility requirements, he or she must pass the equivalent of five, 1/2 units during the first semester.

3. Students must satisfy eligibility requirements in the semester preceding participation.
   a. Credits earned in a summer school approved by the State Department of Education may apply for first semester eligibility. A maximum of two units per year may be used.
   b. Students eligible for a first semester sport will be permitted to complete that sport even if it extends into the second semester. Under the current League program, this will apply to participants in basketball and wrestling in the high school and middle school programs.

4. Students with Disabilities:
   a. Students diagnosed with a disability and being served in a non-diploma program shall be considered eligible for participation in interscholastic activities if he/she is successfully meeting the requirements of his/her Individual Education Plan.
   b. Students diagnosed with a disability and being served in a program leading to a state high school diploma must meet all eligibility requirements previously stated for participation in interscholastic activities.

5. A course that is dropped after the 20th day of a semester with a failing average will be considered as a failed course when determining academic eligibility for the following semester.

6. Credit courses used for eligibility purposes must be courses that are applicable as credit toward a state high school diploma. A student may also use college credit courses provided the student has met or is meeting all requirements for graduation.

7. Academic deficiencies may not be made up through enrollment in adult education programs.

C. A student must not have received a high school diploma or its equivalent.

D. Academic requirements for students enrolled in the seventh and eighth grades, including first semester ninth graders are:

1. Students passing the sixth, seventh, and eighth grades by academic promotion pursuant to district policy are considered as having met the requirements for academic eligibility for first semester.

2. Students in grades seven and eight must be meeting the school district promotion policy at the end of the first semester in order to be eligible second semester. (Second semester ninth grade students must meet League academic regulations.)

E. Schools will follow the procedures outlined in the School Administrators Guide, published by the State Department of Education, in accepting or rejecting credits received by a student while the student is enrolled in private schools, including home schools and/or out-of-state schools.

NOTE: A student failing the seventh or eighth grade is eligible during second semester if he or she has satisfactorily passed first semester work.

CREDIT RECOVERY

SC HIGH SCHOOL LEAGUE

A maximum of two credit recovery units may be used toward eligibility, to include the two units presently allowed in summer school. A credit recovery course must be accepted by the State Department of Education for graduation. To be eligible for recovery credits, the student must have received a minimum grade of 50.

NOTE: Credit Recovery must be completed by the following date:
Courses taken for first semester eligibility – August 10, 2020
Courses taken for second semester eligibility – March 8, 2021
College-bound student athletes will need to meet the following academic requirements to practice, receive athletics scholarships, and/or compete during their first year. Initial full-time collegiate enrollment is required.

**Core Course Requirements**
- **Sixteen (16) core courses** are required (see chart below for subject-area requirements).
  - Ten of the core courses must be completed before the seventh semester of high school. Seven of the ten must be in English, math or natural/physical science.
  - These courses/grades are "locked in" at the start of the seventh semester. They cannot be repeated for grade-point average (GPA) improvement to meet initial-eligibility requirements for competition.
  - Students who do not meet core-course progression requirements may still be eligible to receive athletics aid and practice in the initial year of enrollment by meeting the academic redshirt requirements (see below).

**Core Grade-Point Average**
- Only core courses that appear on the high school’s List of NCAA Courses on the NCAA Eligibility Center’s website (www.eligibilitycenter.org) will be used to calculate a student’s core-course GPA. Use the list as a guide.
- Students must earn a core-course GPA minimum 2.300.
- Core-course GPA is calculated using the best 16 core courses that meet both progression (10 before seventh semester; seven in English, math or science; “locked in”) and subject-area requirements.

**Test Scores: (SAT/ACT)**
- Students must earn the SAT/ACT score that corresponds to the core-course GPA on the Division I sliding scale (see the following page).
  - SAT: evidence-based reading and math sections.
    - Best subscore from each section is used to determine the SAT combined score for initial eligibility.
  - ACT: English, math, reading and science sections.
    - Best subscore from each section is used to determine the ACT sum score for initial eligibility.
- All SAT and ACT attempts before initial full-time collegiate enrollment may be used for initial eligibility.
- Enter 9999 during SAT or ACT registration to ensure the testing agency reports your score directly to the NCAA Eligibility Center. Test scores on transcripts will not be used.

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**DIVISION I Core-Course Requirement (16)**
- 4 years of English
- 3 years of math (Algebra I or higher)
- 2 years of natural/physical science (1 year of lab if offered)
- 2 years of social science
- 1 year of additional English, math or natural/physical science
- 4 years of additional courses (any area above, foreign language or comparative religion/philosophy)

**DIVISION I Full Qualifier Requirements**
*Athletics aid, practice, and competition*
- 16 core courses
  - Ten (10) core courses completed before the start of seventh semester. Seven (7) of the ten must be in English, math or natural/physical science.
  - "Locked in” for core-course GPA calculation
- GPA minimum 2.300
- ACT/SAT score matching core-course GPA on Division I Sliding Scale
- Graduate from high school

**DIVISION I Academic Redshirt Requirements**
*Athletics aid and practice (no competition)*
- 16 core courses
  - No grades/credits "locked in” (repeated courses after the seventh semester begins may be used for initial eligibility)
- GPA minimum 2.000
- ACT/SAT score matching core-course GPA on Division I Sliding Scale
- Graduate from high school

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15 | 2020-2021 High School Course Catalog
<table>
<thead>
<tr>
<th>Core GPA</th>
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<th>ACT Sum</th>
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NCAA DIVISION II INITIAL-ELIGIBILITY REQUIREMENTS

College-bound student athletes will need to meet the following academic requirements to practice, receive athletics scholarships, and/or compete during their first year. Initial full-time collegiate enrollment is required.

**Core Course Requirements**
- To become a full or partial qualifier for Division II, all college-bound student athletes must complete the sixteen (16) core course requirement (see chart below for subject-area requirements).

**Core Grade-Point Average**
- Only core courses that appear on the high school's List of NCAA Courses on the NCAA Eligibility Center's website (www.eligibilitycenter.org) will be used to calculate the student's core-course GPA. Use the list as a guide.
- The minimum Division II core GPA required to receive athletics aid, practice, and be eligible for competition as a full qualifier is 2.200.
- The minimum Division II core GPA required to receive athletics aid and practice as a partial qualifier is 2.000.

**Test Scores: (SAT/ACT)**
- Students must earn the SAT/ACT score that corresponds to the core-course GPA on the Division II sliding scale (see the following page).
  - SAT: evidence-based reading and math sections.
    - Best subscore from each section is used to determine the SAT combined score for initial eligibility.
  - ACT: English, math, reading and science sections.
    - Best subscore from each section is used to determine the ACT sum score for initial eligibility.
- All SAT and ACT attempts before initial full-time collegiate enrollment may be used for initial eligibility.
- Enter 9999 during SAT or ACT registration to ensure the testing agency reports your score directly to the NCAA Eligibility Center. Test scores on transcripts will not be used.

<table>
<thead>
<tr>
<th>DIVISION II Core-Course Requirement (16)</th>
<th>DIVISION II Full Qualifier Requirements *Athletics aid, practice, and competition</th>
<th>DIVISION II Partial Qualifier Requirements *Athletics aid and practice (no competition)</th>
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<td>3 years of English</td>
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<td>2 years of natural/physical science</td>
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For more information, visit the NCAA Eligibility Center website at www.eligibilitycenter.org.
The following courses meet the computer science requirement for graduation:

- Fundamentals of Computing**
- Networking Fundamentals*
- Advanced Networking*
- Cybersecurity Fundamentals*
- Advanced Cybersecurity*
- PLTW Principles of Engineering*
- AP Computer Science Principles*

*Offered at the Anderson Institute of Technology
**Offered at the high school campuses

## ENGLISH/LANGUAGE ARTS

### ENGLISH 1 COLLEGE PREP
1 unit
**Prerequisites:** Grade 8 ELA with grade C or higher.
This course offers a sustained and structured study of classic and contemporary literature including a study of the four main genres: the novel, the short story, drama, and poetry. Composition, communication, and research standards will be integrated and applied through language arts.

### ENGLISH 1 COLLEGE PREP A/B
2 units – 1 unit English, 1 unit elective
**Prerequisites:** Grade 8 ELA.
This course offers a sustained and structured study of classic and contemporary literature including a study of the four main genres: the novel, the short story, drama, and poetry. Composition, communication, and research standards will be integrated and applied through language arts. This is a year-long course.

### ENGLISH 1 HONORS
1 unit
**Prerequisites:** Grade 8 ELA with grade A.
This course offers an integrated study of composition and literature. Multi-genre texts are used as a context for the development of writing skills, grammar skills, and vocabulary. Writing instruction focuses on structure and purpose (i.e. analysis, persuasion, entertainment, and information). Emphasis will also be placed on refining research skills.

### ENGLISH 2 COLLEGE PREP
1 unit
**Prerequisites:** English 1 CP OR English 1 CP A/B with grade C or higher.
This course offers a sustained independent and structured study of literary and informational texts. With the focus on world literature, students read a variety of fiction, poetry, drama, and non-fiction literary texts. Composition, communication, and research will be integrated and applied through this course. The SC state EOCEP (End of Course Examination Program) exam counts 20% of the student’s final grade.

### ENGLISH 2 COLLEGE PREP A/B
2 units – 1 unit English, 1 unit elective
**Prerequisites:** English 1.
This course offers a sustained and structured study of literary and informational texts primarily focused on World Literature. In addition, there is an intense focus on essay development with extensive literary analysis, research, and theme development. Students read, analyze, and respond to a variety of fiction, poetry, drama, and non-fiction selections. There is also the integration of communication skills with an emphasis on group work and collaboration to prepare students for college. The SC state EOCEP (End of Course Examination Program) exam counts 20% of the student’s final grade. This is a year-long course.

### ENGLISH 2 HONORS
1 unit
**Prerequisites:** English 1 Honors with grade B or higher OR English 1 CP with grade A.
This course is a study of all genres of world literature. Composition, grammar, vocabulary, research projects, and oral presentations are stressed. Emphasis is placed on the development of the four major forms of written discourse, on literary analysis, and on imaginative writing. Attention is also given to SAT preparation. The SC state EOCEP (End of Course Examination Program) exam counts 20% of the student’s final grade.

### ENGLISH 3 COLLEGE PREP
1 unit
**Prerequisites:** English 2.
Students refine their knowledge of language through a focused study of American literature. Emphasis is placed on vocabulary development with words drawn from literature, the SAT, and various other sources. Composition and research skills are refined. Critical thinking, speaking, and presentation skills are developed in group and individual projects.
ENGLISH 3 HONORS 1 unit
Prerequisites: English 2 Honors with grade B or higher OR English 2 CP with grade A.
This course focuses on American literature. Composition, grammar, vocabulary, research projects, and oral presentations are stressed. Emphasis is placed on creative projects and interpretation and evaluation of literature. SAT preparation is included.

ENGLISH 4 COLLEGE PREP 1 unit
Prerequisites: English 3.
This course focuses on British literature. Language history and vocabulary in context are emphasized. Composition, grammar, vocabulary, research projects, and oral presentations are stressed. SAT preparation is included. A senior project is a requirement of this course.

ENGLISH 4 HONORS 1 unit
Prerequisites: English 3 Honors with grade B or higher OR English 3 CP with grade A.
This course focuses on British literature. Language history and vocabulary in context are explored. An emphasis on higher level inquiry is incorporated. SAT preparation is included. A senior project is a requirement of this course.

ENGLISH 4 HONORS/ADVANCED PLACEMENT ENGLISH LANGUAGE 2 units - 1 unit AP weight, 1 unit honors weight
Prerequisites: English 3 Honors with grade A.
This course is a hybrid of high school-level British Literature course and college-level AP English Language course, designed for students who are highly motivated and competent in verbal skills and able to explore complex ideas. This course focuses on the development and revision of evidence-based analytic and argumentative writing, the rhetorical analysis of nonfiction and fiction texts, an introduction to literary criticism, and the decisions writers make as they compose and revise. Students evaluate, synthesize, and cite research to support their arguments. Additionally, they read and analyze rhetorical elements, including images as forms of text, from a range of disciplines and historical periods. Students should be able to read and comprehend college-level texts and produce grammatically correct, cohesive writing.

ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION 2 units - 1 unit AP weight, 1 unit honors weight
Prerequisites: English 4 Honors with grade B or higher OR English 3 Honors with grade A and approval of the instructor.
AP English Literature and Composition is a college-level course designed for students who are highly motivated and competent in verbal skills and able to explore complex ideas. The course engages students in the critical analysis of literature and developing advanced inference skills. Through the close reading of selected texts, students deepen their understanding of how writers use language to provide both meaning and pleasure. In addition, they use these skills when they write. Students learn to unlock literary puzzles in order to analyze and support arguments both orally and in writing. Reading in an AP course is both wide and deep; students will use this reading to develop advanced writing and oral argument skills. Students should be able to read and comprehend college-level texts and produce grammatically correct, cohesive writing. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college English literature and composition course.

CREATIVE WRITING 1 unit
Prerequisites: ELA 8 with grade C or higher OR English 1 CP with grade C or higher.
This is an elective course designed to develop students’ expressive writing skills. Students will practice writing techniques used by professional writers, experiment with multiple genres, and develop a personal writing portfolio. The students will be given the opportunity to publish their work.

ENGLISH GRAMMAR 1 unit
Prerequisites: None.
This course is designed to strengthen students’ grammar and writing skills in preparation for college work. Students will focus grammatically on sentence analysis, sentence structure, revising, and editing. Writing assignments will introduce and prepare students for a wide range of essay topics used in college.

JOURNALISM 1 1 unit
Prerequisites: ELA 8 with grade C or higher OR English 1 CP with grade C or higher.
This is an elective course designed to develop students’ expressive writing skills. Students will practice writing techniques used by professional writers, experiment with multiple genres, and develop a personal writing portfolio. The students will be given the opportunity to publish their work.

JOURNALISM 2 1 unit
Prerequisites: Journalism 1 with grade C or higher OR teacher recommendation from prior experience. Recommended for grades 10-12.
The focus of this course is video broadcast. It is an elective course for students who wish to build on journalistic skills acquired in Journalism 1 in the area of broadcast. This course is structured to teach the basics of television production including skills required for operating equipment, script writing, directing, producing, anchoring, reporting, and editing. Students in this class are responsible for producing the daily televised announcements and various other video productions pertaining to school activities.
**MEDIA ARTS 1 – 8 (YEARBOOK) 1 unit each**

Prerequisites: Journalism 1 with grade C or higher OR teacher recommendation from prior experience.

Students involved in this course will be responsible for publishing the yearbook. The program includes study and practice in written journalism as well as extensive work with photography. The focus of this course is to offer students exposure to professional media by offering analysis in print, advertising, photography, and public relations. Students involved will be the staff that does all feature writing, layout design, photography, and publication of the yearbook. This course is an elective that does not take the place of any required English course.

**SPEECH 1 unit**

Prerequisites: Honors English with grade C or higher OR English CP with grade B or higher. Recommended for grades 10-12.

This is an elective course for students who desire to improve their competence in oral expression and the related skills of listening, organizing, and reasoning. It is designed to offer the novice speaker a number of opportunities to organize and prepare public speaking assignments. The course will also offer a "laboratory setting" where the beginning speaker can actually stand in front of a live audience and present his/her practiced performance. In addition to public speaking, further performance opportunities may be included in the area of public oral reading. Content includes speeches and techniques of research, critical thinking and listening, fundamentals of oral expression, the role of communication in our lives, the communication model, spatial relationships, delivery styles, and the effectiveness of language, gestures, and organization techniques.

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**HEALTH AND PHYSICAL EDUCATION**

**COMMUNITY HEALTH 1 unit**

Prerequisites: None.

This course is designed to aid students in understanding both the factors which influence family health and the responsibility for protecting the health of the family and community. It is also designed to aid the class in assessing community health needs and in the wise use of reliable resources.

**PERSONAL HEALTH 1 unit**

Prerequisites: None.

This course is designed to aid students in understanding their growth and development during adolescence. Emphasis is on student involvement in building his or her stores of factual health information and decision-making skills that reflect responsibility for personal health. The course presents current and authentic information and challenges students to make judgments on objective data for a more abundant life. This course will also contain Comprehensive Health Education.

**PHYSICAL EDUCATION 1 1 unit**

Prerequisites: None.

Required for graduation, this basic coeducational course is designed as a conditioning program combined with teaching desirable skills in a variety of activities, including participation in team, group, and individual sports. Leadership and sportsmanship are emphasized. Although one unit of physical education is required for a state diploma, one additional unit can be earned as an elective credit. This course will also contain Comprehensive Health Education.

**PHYSICAL EDUCATION 2 – 8 1 unit each**

Prerequisites: Physical Education 1 AND teacher permission.

These courses are designed for athletes and advanced PE students who wish to develop themselves through athletic weight training and conditioning in order to enhance sport-specific movements and skills. A focus on powerlifting and compound, multi-joint exercises will be stressed along with speed and agility training. Weight room safety is also emphasized.
MATHMATICS

ALGEBRA 1 COLLEGE PREP  1 unit
Prerequisites:  Grade 8 Math with grade C or higher.
Areas of instruction included in this course are patterns and geometric figures, probability and statistics, algebraic expressions, real numbers, equations and inequalities, linear functions, and graphs. The SC state EOCEP (End of Course Examination Program) exam counts 20% of the student's final grade.

ALGEBRA 1 COLLEGE PREP A/B  2 units - 1 unit math, one unit elective
Prerequisites:  Grade 8 Math.
Areas of instruction included in this course are patterns and geometric figures, probability and statistics, algebraic expressions, real numbers, equations and inequalities, linear functions, and graphs. The SC state EOCEP (End of Course Examination Program) exam counts 20% of the student's final grade. This is a year-long course.

ALGEBRA 1 HONORS  1 unit
Prerequisites:  Grade 8 Math with grade A.
The honors level course promotes higher levels of rigor and inquiry. Extension activities and additional projects are required of students enrolled in this course. The SC state EOCEP (End of Course Examination Program) exam counts 20% of the student's final grade.

ALGEBRA 2 COLLEGE PREP  1 unit
Prerequisites:  Geometry Honors OR Geometry CP with grade C or higher OR Geometry A/B College Prep with grade B or higher.
This college preparatory course reviews, expands, and applies skills and concepts learned in Algebra 1. The focus is on a broad range of mathematical content, process, and higher order thinking skills.

ALGEBRA 2 COLLEGE PREP A/B  2 units - 1 unit math, one unit elective
Prerequisites:  Geometry.
This college preparatory course reviews, expands, and applies skills and concepts learned in Algebra 1. The focus is on a broad range of mathematical content, process, and higher order thinking skills. This is a year-long course.

ALGEBRA 2 HONORS  1 unit
Prerequisites:  Geometry Honors with grade B or higher OR Geometry CP with grade A.
This course is for students who have been highly successful in Algebra 1 and who are likely candidates for AP Calculus. It includes topics traditionally taught in Algebra 2 but with an accelerated pace and additional depth. Extension activities and additional projects are required of students enrolled in this course.

CALCULUS COLLEGE PREP  1 unit
Prerequisites:  PreCalculus Honors OR PreCalculus CP with grade C or higher.
This course will provide a basic introduction to the three concepts of calculus: limits, derivatives, and integrals. Students will progress through these topics using algebraic, numerical, graphical, and verbal methods.

CALCULUS HONORS  1 unit
Prerequisites:  PreCalculus Honors with grade C or higher OR PreCalculus CP with grade B or higher.
This course is an applied calculus program for students who have completed PreCalculus but do not wish to take an Advanced Placement course. Students will develop an understanding of limits, continuity, and sequences as well as develop skills of differentiation and integration. Applications will be an emphasis of this course.

GEOMETRY COLLEGE PREP  1 unit
Prerequisites:  Algebra 1 Honors OR Algebra 1 CP with grade C or higher OR Algebra 1 A/B College Prep with grade B or higher.
This course is for college preparatory students who have successfully completed Algebra 1. This course covers the mathematical aspects of shapes and their properties. There is extensive work on reasoning skills and abstract ideas, and many connections are made to algebra and real-world situations.

GEOMETRY COLLEGE PREP A/B  2 units - 1 unit math, one unit elective
Prerequisites:  Algebra 1.
This course bridges the gap between abstract geometrical concepts and real-world applications. Concepts will be introduced through workplace examples so students might apply mathematical principles to real-life situations and develop their capacity for problem solving. Topics include using the tools of geometry, investigating and using the properties of geometric figures, ratio and proportion, trigonometry, similarity and congruence, and measurements. This is a year-long course.

GEOMETRY HONORS  1 unit
Prerequisites:  Algebra 1 Honors with grade B or higher OR Algebra 1 CP with grade A.
This is a course similar in content to Geometry CP but has an accelerated pace and is more in-depth. Higher order thinking skills are stressed. Extension activities and additional projects are required of students enrolled in this course.
PRECALCULUS COLLEGE PREP 1 unit
Prerequisites: Algebra 2 Honors OR Algebra 2 CP with grade C or higher.
This course is designed as a fourth-year college preparatory course for students who have an interest and ability in mathematics. It applies algebraic and geometric concepts to problem solving. It can also serve as a course to reinforce earlier mathematical concepts. It includes topics in analytical geometry and the circular functions.

PRECALCULUS HONORS 1 unit
Prerequisites: Algebra 2 Honors with grade B or higher OR Algebra 2 CP with grade A.
Trigonometric, polynomial, and transcendental functions are integrated with Algebra and Analytic Geometry. Special emphasis is placed on graphing, limits, and real-world applications. This course is the preparatory course for AP Calculus.

PROBABILITY AND STATISTICS COLLEGE PREP 1 unit
Prerequisites: Algebra 2.
Topics include an introduction to statistics, probability, and linear correlation and regression. Students will gather, organize, and interpret data related to real life situations in order to draw conclusions. Course skills will be used in projects related to individual career interests. The use of technology, such as computers and graphing calculators, will be emphasized.

PROBABILITY AND STATISTICS HONORS 1 unit
Prerequisites: Algebra 2 Honors with grade C or higher OR Algebra 2 CP with grade A.
This fourth-year college preparatory course will provide students with a basic understanding of probability and statistics. Included topics are introduction to statistics, probability, estimates and sample sizes, hypothesis testing, etc. Students learn to produce data, to put data into a useable form, and to interpret data so that they may draw conclusions about information gathered. The course is designed to help students develop strong problem-solving skills.

ADVANCED PLACEMENT CALCULUS 2 units - 1 unit AP weight, 1 unit honors weight
Prerequisites: Pre-Calculus Honors with grade B or higher.
This course is a rigorous treatment of the techniques and applications of Calculus and Analytic Geometry. Special emphasis is given to objectives recommended by the College Board. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college calculus course.

ADVANCED PLACEMENT STATISTICS 2 units - 1 unit AP weight, 1 unit honors weight
Prerequisites: Algebra 2 Honors OR Algebra 2 CP with grade B or higher.
Advanced Placement Statistics introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Emphasis will be placed on the four broad conceptual themes recommended by the College Board. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college statistics course.
Housed at Westside High School

**JROTC: LET 1 – 2**  
1 unit each  
Prerequisites: Approval of the instructor.  
This course is highly recommended for 9th grade students. It is a leadership and character development program which stresses individual motivation and discipline. LET 1-2 cadets learn the basics of military drill, American citizenship, physical fitness, first aid and health-related topics, basic geography, map reading skills, American History, and study skills. The course is conducted in a cooperative learning environment that emphasizes teamwork development. The LET 1 course satisfies the requirements for the state mandated unit in Physical Education.

**JROTC: LET 3 – 4**  
1 unit each  
Prerequisites: JROTC LET 1 or 2 AND approval of the instructor.  
Cadets at the LET 3-4 level continue the study of more advanced leadership techniques and their application. Classes continue with more advanced study in American citizenship, career planning, health, methods of instruction, fitness and first aid, advanced geography, map reading and land navigation, and additional American military history.

Housed at T.L. Hanna High School

**JROTC: NAVAL SCIENCE 1 – 2**  
1 unit each  
Prerequisites: None.  
This course provides a broad perspective of military skills and knowledge to include military customs and courtesies, our Flag and National Anthem, officer and enlisted opportunities in the military, maritime geography, sea power, naval history, naval ships and their missions, an introduction to navigation and time, basic seamanship, and principles of health education. Beginning cadets also learn basic marching steps both with and without arms. The Naval Science 1 course satisfies the requirements for the state mandated unit in Physical Education.

**JROTC: NAVAL SCIENCE 3 – 4**  
1 unit each  
Prerequisites: JROTC Naval Science 1 or 2.  
This is a continuation of the basic first year course with increased leadership opportunities and introduction or expansion into Naval leadership, career planning, Naval history, oceanography, rules of the nautical road, Naval operations and communications, intelligence and national security, ship evolutions, and advanced first aid. Upper classmen are afforded off-campus orientation and field trips to military and national points of interest such as Washington, DC, and Navy and Marine boot camp orientations.

**JROTC: NAVAL SCIENCE 5 – 6**  
1 unit each  
Prerequisites: JROTC Naval Science 3 or 4.  
Cadets at this level are challenged with platoon leader or unit cadet staff officer duties and expand their leadership and scholarship development opportunities. Also, outstanding cadets are chosen to attend the U.S. Naval Academy, U.S. Coast Guard, Boy’s and Girl’s State, and the S.C. Police Academies during the summer. One-week mini-boot camps emphasizing physical fitness and leadership development are also available. Academic subjects include leadership development laboratories, fundamentals of American democracy, World War II, Korean and Vietnam War Studies, Russian studies, meteorology and weather, astronomy, and survival training.

**JROTC: NAVAL SCIENCE 7 – 8**  
1 unit each  
Prerequisites: JROTC NAVAL SCIENCE 5 or 6 AND approval of the instructor.  
Cadets selected for the LET 7-8 level are cadets who have demonstrated the ability to lead and are shown to have accumulated the experience in general JROTC knowledge and military skills. LET 7-8 cadets are selected to command at the battalion level or are placed in key staff positions. This course requires the practical application of subjects and skills learned in the previous 3 years and is the most demanding of all cadets’ capabilities and character.
**JROTC: NAVAL SCIENCE 7 – 8**  
1 unit each  
**Prerequisites:** JROTC Naval Science 5 or 6.  
Cadets who desire are assisted in filing college ROTC, service academy, Navy BOOST, or other available scholarships. Cadets who have the aptitude and have demonstrated leadership potential for becoming military officers are given priority attention for scholarship appointments ranging from Navy BOOST/ROTC valued at maximum of $65,000 or to a service academy valued at $125,000. Cadets who have successfully completed three or more years may also enlist with a guaranteed E-3 pay grade after their respective military boot camps. Non-service cadets bound for employment or college are provided leadership training certificates of completion. Both SAT and ACT aptitude tests are available to cadets through the Navy recruiting service. Academically, the final Naval Science year includes career planning and education, leadership evaluation, the nuclear age, military justice, international law of the sea, national strategy, Naval weapons, and Naval research and development. Other activities planned annually are a formal military ball, unit picnic, wild-water rafting exploration, a formal command inspection, a formal awards ceremony, advancement and promotion formation, multiple community service projects, marching in Veteran’s Day and other national holiday parades, and several military drills, air rifle, physical fitness, and land navigation competitive meets. Ribbons are earned for participation and individual excellence with over 24 basic ribbons available. Advancement is based on individual military and academic knowledge with cadet rates and ranks paralleling those of the United States Navy. The ultimate goal is to develop cadets for whom the challenge of life is leadership and citizenship in a stronger America.

### SCIENCE

**ANATOMY AND PHYSIOLOGY**  
1 unit  
**Prerequisites:** Chemistry 1 with grade C or higher OR Chemistry 1 may be taken concurrently.  
This course is designed for students interested in seeking careers in health services or interested in the basic patterns of the human body. Laboratory activities and research are a part of the classroom activities.

**BIOLOGY 1 COLLEGE PREP**  
1 unit  
**Prerequisites (Grade 9):** Grade 8 Science with grade B or higher AND Grade 8 Math with grade C or higher.  
**Prerequisites (Grades 10-12):** Environmental Science.  
The course includes the study of cells, molecular basis of heredity, biological evolution and the diversity of life, interdependence of organisms, matter, energy, and organization in living systems. The SC state EOCEP (End of Course Examination Program) exam counts 20% of the student’s final grade.

**BIOLOGY 1 HONORS**  
1 unit  
**Prerequisites:** GT Science with grade B or higher OR Grade 8 Science with grade A AND Grade 8 Math with grade A OR Algebra 1 with grade C or higher.  
This course includes traditional Biology topics taught at a higher level. This course is recommended for those who are planning to take AP Biology. The SC state EOCEP (End of Course Examination Program) exam counts 20% of the student’s final grade.

**CHEMISTRY 1 COLLEGE PREP**  
1 unit  
**Prerequisites:** Biology 1 AND Algebra 1 CP with grade C or higher in each.  
This course covers atomic and molecular structure, kinetics, gas laws, molecular geometry, bonding, stoichiometry, equilibrium, and organic chemistry. The emphasis is on problem solving and scientific deduction. Laboratory work is essential to this course.

**CHEMISTRY 1 HONORS**  
1 unit  
**Prerequisites:** Algebra 1 Honors with grade B or higher OR Algebra 1 CP with grade A AND Biology 1 Honors with grade B or higher OR Biology 1 CP with grade A.  
Science and Algebra students who are prospective AP Chemistry and/or AP Physics students. It includes traditional Chemistry topics taught at a higher level.

**EARTH SCIENCE**  
1 unit  
**Prerequisites:** Chemistry 1 CP OR Physics CP.  
Earth Science is a laboratory science course that will require students to use science and engineering practices to explore the history, structure, and properties of the observable universe and Earth. Students will examine the natural and man-made forces that affect the atmosphere, hydrosphere, and geology of Earth and how those forces may affect life now and in the future. The relationship between humans and the natural world will be explored with a focus on sustainable practices.

**EARTH SCIENCE HONORS**  
1 unit  
**Prerequisite:** Biology 1 Honors, Chemistry 1 Honors OR Physics 1 Honors.  
Earth Science is a rigorous laboratory course focusing on the study of space, and the geologic and atmospheric forces that shape our world. Through experimentation and investigation, students will explore the earth cycles including the geosphere, hydrosphere, and the atmosphere. Students will learn about scientific inquiry, geologic time, space exploration, the solar system and the universe. Students will use interactive experiences, higher order thinking, collaborative projects, and real-world application through labs and a variety of assessments.
ENVIRONMENTAL SCIENCE 1 unit
Prerequisites: None.
This course is intended to show how organisms are related to their environment and to each other. To achieve this, various types of pollution and their causes are explored. Discussion of energy alternatives and energy depletion is also a topic for this course. At the completion of the course, students should be able to recognize how they make a difference in their environment, whether or not they are a cause of its deterioration, or if they are keeping it livable for future generations.

FORENSIC SCIENCE 1 unit
Prerequisites: Biology 1 Honors OR Biology 1 CP.
This course is designed to engage students in the scientific study of searching and processing crimes scenes. The course involves the detailed discussion of types of physical evidence and the analytical processes that are utilized in a forensic science laboratory. In addition, students will survey careers in forensic science and investigate mock crime scenes. Laboratory activities will give students the opportunity to demonstrate forensic science techniques presented in the course.

PHYSICAL SCIENCE COLLEGE PREP 1 unit
Prerequisites: None.
This course is designed to acquaint the student with the basic principles of physical science, namely chemistry and physics. The course deals with the properties and changes that take place in matter. Concepts include measurements, matter, simple forms of energy, magnetism, light, sound, heat, and electricity.

PHYSICS COLLEGE PREP 1 unit
Prerequisites: Biology 1 AND Algebra 1 with grade C or higher in each.
This course introduces the core areas of physics: (1) interactions and forces (patterns of linear motion, forces and changes in motion, interactions and contact forces, and interactions and noncontact forces and fields); (2) interactions and energy (conservation and energy transfer and work, mechanical energy, thermal energy, sound, electricity and magnetism, radiation, and nuclear energy). Students will demonstrate conceptual understanding through short answers, diagrams, and graphs. Students will determine relevant measurements describing a physical system, plan and carry out experiments, analyze data graphically and mathematically using strong algebra skills, and apply the laboratory results to a broad range of situations including applications to technology and everyday life. Students will engage in deeper discussions and work with higher level mathematical skills (including some trigonometry) in this honors level course designed for highly successful science and algebra students.

ADVANCED PLACEMENT BIOLOGY 2 units - 1 unit AP weight, 1 unit honors weight
Prerequisites: Biology 1 Honors with grade B or higher OR teacher recommendation.
This course features a comprehensive study of molecules, cells, heredity, organisms, and populations. This is a college level course. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college biology course.

ADVANCED PLACEMENT CHEMISTRY 2 units - 1 unit AP weight, 1 unit honors weight
Prerequisites: Chemistry 1 Honors with grade B or higher.
Lab work, problem solving, and analysis are highly emphasized. This is a college level course. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college chemistry course.

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE 1 unit
Prerequisites: Chemistry 1 Honors with grade C or higher OR Chemistry 1 Honors may be taken concurrently.
The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. This is a college level course. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college environmental science course.

ADVANCED PLACEMENT PHYSICS 2 units - 1 unit AP weight, 1 unit honors weight
Prerequisites: PreCalculus Honors OR PreCalculus CP with grade B or higher.
Lab work, problem solving, and analysis are predominant characteristics of this course. This is a college level course. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college physics course.
AFRICAN AMERICAN HISTORY 1 unit
Prerequisites: None.
This is an elective course that focuses on the history of African-Americans, from life in ancient Africa to the election of the first African-American president of the United States. Topics include transatlantic slave trade, establishment of slavery in America, plantation life and slave culture, abolitionism, the Civil War, reconstruction, the rise and fall of Jim Crow, segregation, the Great Migration, Harlem Renaissance, World War I, the Great Depression, World War II, the Civil Rights Movement, and issues of the modern era. These themes will be explored by using primary source documents (including written documents and audio recordings), literature, music, video clips, and art that depict the complete history of African-Americans.

ECONOMICS COLLEGE PREP 0.5 unit
Prerequisites: None.
This course introduces such concepts as scarcity, cost versus benefits, and supply and demand. A unit on personal finance equips the students with the tools for economic success. There is also a study of the national economy including such topics as the role of the Federal Reserve and major economic indicators. A final component of the course is a study of the global marketplace. A 0.5 unit of Economics is required for graduation.

ECONOMICS HONORS 0.5 unit
Prerequisites: A previous honors level social studies course with grade B or higher OR a previous CP level social studies course with grade A OR English Honors with grade B or higher OR English CP with grade A.
Economics Honors is an intensive study of the American economic system. Topics range from scarcity to supply and demand to America’s role in a global economy. Personal finance is also stressed. There is a significant amount of outside reading and research relating to the economy. Critical thinking skills and expository writing will be emphasized throughout the course. A 0.5 unit of Economics is required for graduation.

LAW EDUCATION 1 unit
Prerequisites: None.
The course will place primary emphasis on understanding the fundamental principles and values underlying our Constitution, laws, and legal system. Current issues and debates relating to the law will be discussed. The rights of the individual will be stressed with emphasis on the citizen’s role in society. Courtroom visits and a variety of law-related speakers will add to the relevance of this course.

PSYCHOLOGY 0.5 unit
Prerequisites: None. Recommended for grades 10-12.
This course is a social science that includes the following topics: background and history of psychology, the learning of behavior development, behavioral disorders, and intelligence.

SOCIOLOGY 0.5 unit
Prerequisites: None. Recommended for grades 10-12.
This course is a social science that includes the following topics: background and history of sociology, culture and cultural changes, values, norms, sanctions, groups and group interaction, and social problems.

U.S. GOVERNMENT COLLEGE PREP 0.5 unit
Prerequisites: None.
This course teaches our civil rights and liberties as contained in the United States Constitution, as well as our civic responsibilities. The evolution of government, especially in the United States, is studied in detail. The relationships among the three branches of government at all levels are included. The James B. Edwards Civics Initiative requires students to take the civics test that is published annually by the United States Citizenship and Immigration Services. This test will be given in the U.S. Government classes. A 0.5 unit of U.S. Government is required for graduation.

U.S. GOVERNMENT HONORS 0.5 unit
Prerequisites: A previous honors level social studies course with grade B or higher OR a previous CP level social studies course with grade A OR English Honors with grade B or higher OR English CP with grade A.
U.S. Government Honors is an intensive study of the American government system. Emphasis is placed on the U.S. Constitution, the relationships among the three branches of government, the historical development of each branch, and key personalities who have molded our government. There is a significant amount of outside reading and research relating to the government. Critical thinking skills and expository writing will be emphasized throughout the course. The James B. Edwards Civics Initiative requires students to take the civics test that is published annually by the United States Citizenship and Immigration Services. This test will be given in the U.S. Government classes. A 0.5 unit of U.S. Government is required for graduation.
U.S. HISTORY AND CONSTITUTION

COLLEGE PREP 1 unit
Prerequisites: None.
This course includes an introductory summary of the American Revolution, creation of the federal union and Constitution, westward expansion, sectionalism, War Between the States, and Reconstruction. Primary emphasis is focused on industrialization, immigration, World Wars I and II, Roaring Twenties, Great Depression, Cold War, Civil Rights movement, and America’s role in the 21st century. Students will attain a greater degree of understanding of the United States and their role in society. The SC state EOCEP (End of Course Examination Program) exam counts 20% of the student’s final grade. A unit of United States History and Constitution is required for graduation.

U.S. HISTORY AND CONSTITUTION

HONORS 1 unit
Prerequisites: A previous honors level social studies course with grade B or higher OR a previous CP level social studies course with grade A OR English Honors with grade B or higher OR English CP with grade A.
This course is a survey of American History from the discovery of America to the current era. An introductory summary includes the Age of Discovery, colonial experience, American Revolution, Federal Era and Constitution, western expansion, sectionalism, the War Between the States, and Reconstruction. Primary emphasis is on the late nineteenth century and twentieth century. Topics include: industrialization, the world wars, Roaring Twenties, Great Depression, Cold War, Civil Rights Era, and the United States’ role in the modern world. Academic emphasis in this course will be on advanced interpretive, critical thinking, and writing skills. Outside reading assignments, as well as research projects, will assist the student in preparing for the Advanced Placement United States History course. The SC state EOCEP (End of Course Examination Program) exam counts 20% of the student’s final grade. A unit of United States History and Constitution is required for graduation.

WORLD HISTORY COLLEGE PREP 1 unit
Prerequisites: None.
This course is a study of the major periods and accomplishments of our world’s peoples. It emphasizes significant cultures, regions, individuals and events that have shaped the world. World History highlights the period from 1300 to the present with emphasis on the Renaissance, Age of Discovery, industrialization, nationalism, the world wars, and the Cold War. This course is recommended for college bound students.

WORLD HISTORY HONORS 1 unit
Prerequisites: English 1 Honors with grade B or higher OR taken concurrently with Honors English course.
World History Honors is an intermediate-level survey of the key events since 1300. Focus is on those periods and movements which most significantly impacted their time and whose influence is still felt in ours. This approach will seek to develop stronger reading comprehension, expository writing and historical analysis skills in the student. This course is recommended for students interested in academic rigor and future social studies coursework in the Advanced Placement curriculum.

ADVANCED PLACEMENT EUROPEAN HISTORY 2 units - 1 unit AP weight, 1 unit honors weight
Prerequisites: Honors English course with grade B or higher OR CP English course with grade A. Recommended for grades 10-12.
This AP European History course will survey the main cultural, intellectual, societal, political, and economic themes of European history from 1450 to present day. Students will discuss, analyze, and evaluate major events of the ages. Students will be required to do rigorous assignments including analytical reading of historical documents and primary sources, writing essays, and evaluating historiography of various events. One outside book will be assigned each semester for analysis as well. The course is aimed at students wishing to learn about European history in a challenging environment. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college European history course.

ADVANCED PLACEMENT MACROECONOMICS 1 unit
Prerequisites: Honors English course with grade B or higher OR CP English course with grade A. Recommended for grades 10-12.
An AP course in Macroeconomics is designed to give the student a thorough understanding of the principles of economics that apply to an economic system as a whole. Such a course places particular emphasis on the study of national income and price determination, and develops familiarity with economic performance measures, economic growth, and international economics. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college macroeconomics course.

ADVANCED PLACEMENT PSYCHOLOGY 2 units - 1 unit AP weight, 1 unit honors weight
Prerequisites: Honors English course with grade B or higher OR CP English course with grade A. Recommended for grades 10-12.
This course is designed as a college-level course that is an intensive study of human behavior including personality theory, behavioral theories, abnormal behaviors, brain-based disorders, and the life cycle. Much emphasis is placed on outside reading, research techniques, case studies, and writing projects. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college psychology course.
ADVANCED PLACEMENT

U.S. GOVERNMENT  
1 unit
Prerequisites: Honors English course with grade B or higher OR CP English course with grade A. Honors Government and Economics with grade B or higher is required. Recommended for grades 10-12.
This course provides an analytical perspective on government and politics in the U.S. It involves both the study of general concepts used to interpret U.S. politics and the analysis of specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. political reality. Constitutional underpinnings of U.S. government, political beliefs and behaviors, political parties, interest groups and mass media, institutions of national government, public policy, and civil rights and civil liberties are main content areas. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college U.S. government course.

ADVANCED PLACEMENT U.S. HISTORY
2 units - 1 unit AP weight, 1 unit honors weight
Prerequisites (Grade 9): English 1 Honors with grade A.
Prerequisites (Grades 10-12): Honors English course with grade B or higher OR CP English course with grade A.
This class is a rigorous college-level course that requires a commitment from the student to perform at the highest level. It is an intense study of the American experience from the Age of Discovery through the current era. Extensive reading and demanding research, analysis, and interpretation of documents and data are required. Critical thinking skills are emphasized throughout the course. Considerable emphasis is placed on writing skills to prepare students for the Free-Response and Document Based Questions on the AP U.S. History Examination. Students who have not taken U.S. History and Constitution will also be required to take the SC state EOCEP (End of Course Examination Program) exam, which counts 20% of the student’s final grade. A unit of United States History and Constitution is required for graduation. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college U.S. history course.

ADVANCED PLACEMENT WORLD HISTORY
2 units - 1 unit AP weight, 1 unit honors weight
Prerequisites (Grade 9): English 1 Honors with grade A.
Prerequisites (Grades 10-12): Honors English course with grade B or higher OR CP English course with grade A.
This course is an intense college-level study of the history of world civilization over the past 10,000 years. Demanding reading, research and writing is required. The course demands commitment and discipline from the student in order to perform well on the Advanced Placement examination. Advanced Placement World History builds on an understanding of cultural, institutional, and technological precedents that, along with geography, set the human stage. The course will have as its chronological framework the period from 8000 B.C.E. to the present. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college world history course.
VISUAL AND PERFORMING ARTS

See pages 35-38 for the Visual & Performing Arts courses offered at Southwood Academy of the Arts.

MUSIC

BAND 1 1 unit
Prerequisites: Music reading and performance ability on percussion, woodwind or brass instruments.
Band 1 is offered to entering ninth grade band students for the study and performance of quality band music. Class activities emphasize the development of instrument technique, tone production, tuning, fundamentals of music theory, music reading, and listening skills.

BAND 2 – 8 1 unit each
Prerequisites: Band 1 OR audition.
Band 2-8 are continuation levels for students with four or more years of previous band experience (including middle school). Odd numbered Band courses (3, 5, and 7) focus on marching band (fall), while even numbered Band courses (2, 4, 6, 8) focus on concert band (spring). Emphasis is on the advancement of instrument technique, the further development of ensemble performance skills, and rehearsal and performance of intermediate level band music.

BAND HONORS 1 unit
Prerequisites: Audition AND Contract.
Band Honors is an upper-level performance opportunity for accomplished wind and percussion players. Band Honors offers students great variety and challenge in musical performance, including experiences in chamber music, analysis, theory and history. To receive honors credit students are required to complete an honors contract.

MUSIC APPRECIATION 1 unit
Prerequisites: None.
This course is designed to provide the student with a solid foundation of musical knowledge. In this course, the student will discover that music is not only a means of expressing ourselves but that it is also a documentation of history and culture of society. Students will leave this class with a broad knowledge of various types of music. The goal of this class is to develop students who are more informed about the place of music in history and who will become the audiences for the arts. Students will be engaged in listening and learning activities throughout the year that will include the following musical time periods and genres: Medieval, Renaissance, Baroque, Classical, Romantic, Twentieth Century, Jazz, Rock and Roll, Big Band, Country, Bluegrass, Folk, Opera and Broadway musicals.

ADVANCED PLACEMENT MUSIC THEORY 1 unit
Prerequisites: Audition OR teacher recommendation. It is highly recommended that students who enroll in this course have a moderate proficiency on an instrument. This includes, but is not limited to: voice, piano, guitar, woodwind instruments, brass instruments, strings instruments, and percussion. Recommended for grades 10-12.
Students who enroll in AP Music Theory will learn the equivalent of a 1st year college-level music theory course. This includes mastery of music reading, musical notation, aural skills, harmonic and melodic dictation, form and analysis, and basic composition. The AP exam is given at the end of this course and may allow students to receive college credit.

VISUAL ARTS

ART 1 1 unit
Prerequisites: None.
Art 1 is a foundational course that teaches the fundamentals of art through the elements and principles of design. Students will experiment with different media and be challenged to draw and design from direct observation, while learning complex techniques to help them create and problem solve. This course will be the basis for all advanced art classes. There is a $10.00 fee for this course.

ART 2 1 unit
Prerequisites: Art 1.
Art 2 is an exploration of media and technique, while building on the foundation of skills acquired in Art 1. Students are given more open-ended creative problems that allow them the individuality and creativity to make conceptual ideas a means of personal expression. Mediums used are graphite, charcoal, colored pencil, acrylic paint, watercolor, and printmaking. There is a $10.00 fee for this course.

ART 3 1 unit
Prerequisites: Art 2 with grade B or higher.
Art students who are enrolled in a level 3 or 4 art class and who are classified as juniors and seniors in high school may apply for Honors weighting. Honors courses are designed for the serious art student who intends to prepare for AP Visual Arts Course(s). They are differentiated by the extensive rigor in thinking processes and additional project/performance assessments above and beyond the general course requirements. Emphasis will be placed on conceptual thinking and problem solving, superior craftsmanship, originality, and self-reflection. To receive honors credit students are required to complete an honors contract. There is a $10.00 fee for this course.
ART 4
Prerequisites: Art 3 with grade B or higher.
Art students who are enrolled in a level 3 or 4 art class and who are classified as juniors and seniors in high school may apply for Honors weighting. Honors courses are designed for the serious art student who intends to prepare for AP Visual Arts Course(s). They are differentiated by the extensive rigor in thinking processes and additional project/performance assessments above and beyond the general course requirements. Emphasis will be placed on conceptual thinking and problem solving, superior craftsmanship, originality, and self-reflection. To receive honors credit students are required to complete an honors contract. There is a $10.00 fee for this course.

ART: CERAMICS 1
Prerequisites: Art 1 with grade B or higher.
This course will involve creating works of art in clay using a variety of handbuilding processes such as pinching, coils and slabs, as well as a limited amount of work on the potter’s wheel. Students will learn about various clay bodies and their properties, and how to dig and process natural clay. Students will explore basic glaze chemistry, including mixing their own glazes, loading kilns, and firing their own work. Students will also be exposed to a history of both functional and decorative ceramic arts. There is a $20.00 fee for this course.

ART: CERAMICS 2
Prerequisites: Art - Ceramics 1 with grade B or higher.
Ceramics 2 will focus on higher level projects involving pinching, coiling, and slabs, focusing on both functional and decorative ceramics. Students will be expected to work more independently than in Ceramics 1. Instruction will include exposure to the potter’s wheel. Students will also learn about clay bodies, glaze chemistry, kiln loading and firing, and ceramic history. There is a $20.00 fee for this course.

ART HISTORY
Prerequisites: None. Recommended for grades 9-12.
This course will immerse students in the study of modern visual culture from the mid-nineteenth century to the present. The course involves critical thinking, and the student will develop an understanding and knowledge of diverse historical contexts of architecture, sculpture, painting, and other media. Attention will be given to cultural and technical influences on art production, analysis of individual styles and art works, examination of aesthetic criteria, and recognition of stylistic characteristics.

DIGITAL ARTS
Prerequisites: Art 1 with grade B or higher.
Do you have a passion for visual art or visual communication? Are you interested in careers in the design, production, display, and presentation fields of digital arts? This introductory design course teaches cores skills using Krita, a free open-source program, Photoshop, and other applications. As you create a detailed still life and other artworks throughout the course, you’ll learn the basic elements of visual art: line, shape, form, color, value, space, and texture. You will use what you learn to express yourself in original digital drawings and artwork. There is a $10.00 fee for this course.

COLOR GUARD 1-8
Prerequisites: Audition.
The Anderson School District Five Color Guard classes offer instruction in individual and ensemble visual performance. The Color Guard will provide various performance opportunities during the year including football games, pep rallies, marching competitions, parades, and CWEA Winter Guard shows. This course combines dance, drama, performance, and the manipulation of flags, sabers, and rifles into a magical artistry of pageantry.

THEATRE 1
Prerequisites: None.
This course is designed to introduce students to the world of Theatre Arts. Exercises to build self-esteem, trust and empathy are integrated with the technical aspects of theatre. Basic terminology, vocal and movement exercises, as well as writing activities are incorporated. Students learn the art as an audience member as well as a performer, and build self-confidence by learning about themselves and appreciating the differences and similarities of others. Skills such as communication, concentration, memorization, and imagination will be developed. Interpreting play scripts and understanding the process of theatrical productions are also goals for this class.
## World Languages

### French

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>French 1</td>
<td>None.</td>
<td>1</td>
</tr>
<tr>
<td>French 2</td>
<td>French 1 with grade C or higher</td>
<td>1</td>
</tr>
<tr>
<td>French 3</td>
<td>French 2 with grade C or higher</td>
<td>1</td>
</tr>
<tr>
<td>French 4</td>
<td>French 3 with grade C or higher</td>
<td>1</td>
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</tbody>
</table>

This course is the first in a series to develop the skills of understanding, speaking, reading, and writing French. Students will learn to pronounce and use the basic sounds and intonation patterns of the language. They will master a limited set of structural and lexical objectives to be used in common daily conversational situations. They will also gain a basic knowledge of contemporary French cultures as they participate in language learning activities to develop communicative competence.

### Spanish

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish 1</td>
<td>None.</td>
<td>1</td>
</tr>
<tr>
<td>Spanish 2</td>
<td>Spanish 1 with grade C or higher</td>
<td>1</td>
</tr>
<tr>
<td>Spanish 3</td>
<td>Spanish 2 with grade C or higher</td>
<td>1</td>
</tr>
<tr>
<td>Spanish 4</td>
<td>Spanish 3 with grade C or higher</td>
<td>1</td>
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</tbody>
</table>

This course is the first in a series to develop the skills of understanding, speaking, reading, and writing Spanish. Students will learn to pronounce and use the basic sounds and intonation patterns of the language. They will master a limited set of structural and lexical objectives to be used in common daily conversational situations. They will also gain a basic knowledge of contemporary Spanish cultures as they participate in language learning activities to develop communicative competence.

### Spanish

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish 1</td>
<td>None.</td>
<td>1</td>
</tr>
<tr>
<td>Spanish 2</td>
<td>Spanish 1 with grade C or higher</td>
<td>1</td>
</tr>
<tr>
<td>Spanish 3</td>
<td>Spanish 2 with grade C or higher</td>
<td>1</td>
</tr>
<tr>
<td>Spanish 4</td>
<td>Spanish 3 with grade C or higher</td>
<td>1</td>
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</table>

This course is designed for students to expand their knowledge of the Spanish language and culture. The major objective of the course is development of the four skills of understanding, speaking, reading, and writing. Students will expand their vocabulary in situations covered in Spanish 1 as well as new areas. They will develop the ability to use complex grammatical structures and a number of verb tenses. Contemporary Spanish culture will be the basis for expanding knowledge in this area.

### Spanish

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish 1</td>
<td>None.</td>
<td>1</td>
</tr>
<tr>
<td>Spanish 2</td>
<td>Spanish 1 with grade C or higher</td>
<td>1</td>
</tr>
<tr>
<td>Spanish 3</td>
<td>Spanish 2 with grade C or higher</td>
<td>1</td>
</tr>
<tr>
<td>Spanish 4</td>
<td>Spanish 3 with grade C or higher</td>
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</tbody>
</table>

This course is designed for students to expand considerably their learning and activities in the Spanish language and culture. They will complete the study of the basic grammatical structures and continue the development of the four skills using these structures and vocabulary on this level. Throughout the course there will be systematic review of language patterns studied earlier. Although students will continue their study of contemporary culture of the Spanish-speaking world, they will learn about its history and art.
ADVANCED PLACEMENT SPANISH 1 unit
Prerequisites: Spanish 4 with grade B or higher AND continuous enrollment in English Honors.
This class intensively prepares the students for the AP Exam. Authentic materials will be utilized to enhance vocabulary and communication skills. The “five C’s” of the Foreign Language Standards — Communication, Culture, Comparisons, Connections and Communities — will be addressed throughout the semester. Students who successfully complete the course and earn a qualifying score on the required AP examination may earn credit for an introductory college Spanish course.

CAREER AND TECHNOLOGY EDUCATION (CATE) COURSES

The course offerings in this section pertain to CATE classes offered at the high schools only.

<table>
<thead>
<tr>
<th>Business Administration</th>
<th>Required Courses (3 units required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Image Editing (1 unit)</td>
<td></td>
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<tr>
<td>• Digital Publication Design (1 unit)</td>
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<tr>
<td>Plus one of the following:</td>
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<tr>
<td>• Digital Technologies (1 unit)</td>
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<tr>
<td>• Entrepreneurship (1 unit)</td>
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<tr>
<td>• Google Applications (1 unit)</td>
<td></td>
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<tr>
<td>• Fundamentals of Computing (1 unit)*</td>
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<tr>
<td>*This course meets the computer science requirement for graduation.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>DIGITAL TECHNOLOGIES</th>
<th>1 unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites: None. Recommended for grades 10-12.</td>
<td></td>
</tr>
<tr>
<td>This course introduces students to new and emerging technologies that are impacting the way we utilize information when accessing computers and other technology devices. Students will be introduced to speech recognition software, mobile application, and online collaboration tools. Tablets, iPads, and smartphones will be introduced as tools for personal and business applications.</td>
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<thead>
<tr>
<th>ENTREPRENEURSHIP</th>
<th>1 unit</th>
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<tbody>
<tr>
<td>Prerequisites: None. Recommended for grades 10-12.</td>
<td></td>
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<tr>
<td>This course is designed to provide students with the knowledge and skills leading to the development of a business plan for small business ownership. An important part of the course will be the incorporation of traditional and nontraditional marketing strategies, technology, staffing, and financial considerations.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>FUNDAMENTALS OF COMPUTING</th>
<th>1 unit</th>
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<tbody>
<tr>
<td>Prerequisites: Algebra 1.</td>
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<tr>
<td>This course is designed to allow students to explore a variety of computer science topics, such as web design, human computer interactions, programming, and problem solving. Optional topics include mobile applications, robotics, and digital animation. Students will develop critical thinking, logic, and problem-solving skills relevant to today’s technology. This course meets the computer science requirement for graduation.</td>
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<table>
<thead>
<tr>
<th>GOOGLE APPLICATIONS</th>
<th>1 unit</th>
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</thead>
<tbody>
<tr>
<td>Prerequisites: None. Recommended for grades 10-12.</td>
<td></td>
</tr>
<tr>
<td>Google Applications is designed to introduce students to many of the applications that Google offers. The course builds on skills beyond the traditional introduction of computer concepts and incorporates emerging technologies using Google Applications. This course will prepare students for learning and working in the 21st century through communication and collaboration tools including the use of Google Drive, Sites, Calendar, Mail, Maps, and more. Real world student-centered activities will strengthen students’ technology skills in the continually changing online Google community.</td>
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</table>

<table>
<thead>
<tr>
<th>IMAGE EDITING</th>
<th>1 unit</th>
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<tbody>
<tr>
<td>Prerequisites: None. Recommended for grades 10-12.</td>
<td></td>
</tr>
<tr>
<td>Students are instructed in the fundamental features of using digital imaging software in editing and designing both photos and graphics. Students also learn the use of technologies related to digital imaging such as: basic computer operations, file sharing across networks, digital scanning, digital photography, preparing documents for output to various types of high resolution printers, and color calibration. Successful completion of Image Editing 1 will help provide a foundation for continued training as well as complementary training for related course work.</td>
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<tr>
<th>DIGITAL PUBLICATION DESIGN</th>
<th>1 unit</th>
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<tbody>
<tr>
<td>Prerequisites: None. Recommended for grades 10-12.</td>
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<tr>
<td>This course brings together graphics and text to create professional level publications. Students create, format, illustrate, design, edit/revise, and print publications. Improved productivity of publications is emphasized. Proofreading, document composition, and communication competencies are also included.</td>
<td></td>
</tr>
</tbody>
</table>
OTHER COURSES

AVID 1 – 4  
1 unit each
Application, interview, and acceptance into the program required.
AVID (Advancement Via Individual Determination) is offered as an elective course that prepares students for entrance into four-year colleges. There is an emphasis on analytical writing, preparation for college entrance and placement exams, study skills and test taking, note taking, and research. AVID students are required to take the most rigorous coursework possible. To support them in the rigorous coursework, AVID students learn organizational and study skills, develop critical thinking, learn to ask probing questions, receive academic help from peers and college tutors, and participate in enrichment and motivational activities to make their college dreams reality. In AVID, students also participate in motivational activities including college and career research, college and career outreach speakers, field trips to colleges and businesses and other educational opportunities in their communities, and service learning experiences. These activities provide students with the resources they need to learn about many positive opportunities available to them in the community that will impact their future. Honors credit available for levels 3 and 4 with contract.

SAT PREP  
1 unit
Prerequisites: Algebra 1 CP AND Geometry CP. Must be enrolled in college preparatory work. Grades 11-12.
This course is designed to assist students in the overall development of critical thinking skills and test-taking strategies. These skills are of utmost importance to achieve desired scores on the verbal and math sections of the SAT and/or the ACT.

TEACHER CADET  
1 unit
Prerequisites: 3.0 GPA AND application required. Receives Dual Credit weight. Grade 12 only.
The Teacher Cadet course is open to high school students who meet the admission criteria established by the Center for Educator Recruitment, Retention, and Advancement (CERRA). The course is designed to acquaint high school students with the role of the teacher and the teaching professional. Students in the course will have the opportunity to apply for the SC Teaching Fellows Scholarship.

COLLEGE AND CAREER READINESS  
1 unit
Prerequisites: None.
The primary purpose of this course is to prepare students for academic and professional success both in high school and beyond. There is an emphasis on goal setting, financial literacy, digital literacy, and college and career readiness skills. Students will utilize applied technology skills (with an emphasis on Google apps), improve academic skills (oral presentations, note-taking strategies and research skills, goal setting and planning skills, and Career Readiness assessment preparation), complete personal traits assessments (personality, interests, multiple intelligences, values and skills surveys), explore college alternatives (public and private universities, community colleges, and trade/tech schools), and complete career surveys. Students will complete SC EEDA requirements such as a community service project, structured career exploration, defining a career major, and job shadowing. All assignments and projects are designed to develop the technological knowledge, skills, and confidence necessary to succeed in future academic and professional pursuits. Students will also have the opportunity to complete Microburst, a nationally recognized credential, during this course. Microburst is designed to teach the soft skills needed to be successful in life. Microburst focuses on interpersonal skills, employment basics, communication skills, teamwork, conflict resolution, dependability and reliability, flexibility and adaptability, planning and organization, productivity, and initiative.
DANCE

DANCE 1
Prerequisites: Audition.
BEGINNER: This is an entry level course. It introduces dance to the beginner dancer or color guard member. The student will identify and demonstrate movement elements and skills and apply them while performing dance. They will implement choreographic principles, processes, and structures. The student will use dance as a medium to communicate meaning and/or artistic intent. He/she will demonstrate an understanding of dance in various cultures and historical periods. The student will make connections between dance and other arts disciplines, other content areas, and the world.

DANCE 2 – 8
Prerequisites: Audition OR previous level Dance course AND teacher recommendation.
These courses will focus on intermediate and advanced technique, choreography, dance styles, performance skills, and critical analysis of dance skills. The student will be given more complex assignments to enhance their understanding of dance and choreography. The students that are signed up for these courses will be required to participate in community performances throughout the year. These courses will further the students’ exploration of his/her movement qualities and choreographic process and strategies. These students are required to choreograph dance pieces for fall and spring showcases. Honors credit is available for levels 3 and above.
To receive honors credit students are required to complete an honors contract. Honors credit courses require students to complete an advanced curriculum with rigorous coursework that increases the level of student performance in the arts area.

MUSIC

CONCERT CHORAL MUSIC 1 AND 2
Prerequisites: Interest survey. No audition required.
Concert Choral Music is a course designed to challenge singers of various levels to prepare them for Chamber Chorus. Singers study music theory, solfege, music history, sight-singing, and vocal techniques. Choral Music offers students an opportunity to study a variety of repertoire ranging from Renaissance to Contemporary genres. Performance attendance is a requirement for this course. Singers have opportunities to perform in local events, state/national festivals, and national competitions. Formal attire will be required and guidelines will be outlined at the beginning of the course. This group also participates in a number of fundraisers to ensure all students receive equal opportunity to participate in every event and trip. There is a $10.00 fee for this course.

CHAMBER CHORUS 1 – 8
Prerequisites: Audition AND written test.
Chamber Chorus is a course designed to challenge singers of higher levels. Singers study advanced levels of music theory, solfege, music history, sight-singing, and vocal techniques. Chamber Chorus offers students an opportunity to study a variety of repertoire ranging from Renaissance to Contemporary genres. Performance attendance is a requirement for this course. Singers have opportunities to perform in local events, state/national festivals, and national competitions. Formal attire will be required and guidelines will be outlined at the beginning of the course. This group also participates in a number of fundraisers to ensure all students receive equal opportunity to participate in every event and trip. Honors credit is available for levels 3 and above.

SHOW CHORUS 1 – 8
Prerequisites: Audition AND written test.
Students enrolled in show chorus will develop the skills of singing and dancing, performing modern popular music, classic show-style tunes from Broadway, and vocal jazz music. Show Chorus, along with the Chamber Chorus, will be the premier choral ambassadors for Southwood Academy of the Arts and Anderson School District 5. Students need no prior singing or dance experience, but must be actively committed to learning how to do both at a very high level. Class time will be spent on voice training, music literacy, choreography, and memorizing routines. Students are expected to attend all concerts and performances as they are scheduled throughout the year. Grading and assignments will be primarily performance and rehearsal based, but there will also be several projects and/or assignments involving sight singing, music theory, and/or personal research throughout the year. Students enrolled in Show Chorus are also expected to learn Chamber Chorus music as needed. Honors credit is available for levels 3 and above. To receive honors credit students are required to complete an honors contract. Honors credit courses require students to complete an advanced curriculum with rigorous coursework that increases the level of student performance in the arts area. There is a $10.00 fee for this course.
GUITAR 1 1 unit
Prerequisites: Interest survey. No audition required.
BEGINNER: This course is a study of basic guitar performance techniques. Students will be asked to perform music both alone and with others in a number of different styles, including rock, pop, blues, R&B, classical, bluegrass, country, folk, funk, and a variety of others. No previous musical training is required. In addition to performance skills, students will learn basic theory concepts, including notational reading, functional harmony, keys, scales, intervals, chords, and the fundamentals of popular music composition.

GUITAR 2 – 8 1 unit each
Prerequisites: Previous level Guitar course OR audition.
These courses study intermediate and advanced guitar performance techniques. Students will demonstrate an advanced knowledge of performance abilities, including barre chords, finger picking, major scales, minor scales, pentatonic scales, octatonic scales, whole tone scales, blues scales, and arpeggios. Students will be required to perform both individually and in small groups for the class. Honors credit is available for levels 3 and above. To receive honors credit students are required to complete an honors contract. Honors credit courses require students to complete an advanced curriculum with rigorous coursework that increases the level of student performance in the arts area.

MUSIC PRODUCTION 1 1 unit
Prerequisites: Interest survey. No audition required.
This course is a study of the basic concepts related to music production, composition, and song writing. The units covering music production will discuss concepts related to loops, arranging, mixing, mastering, and recording through the use of Garageband and ProTools. Units on composition will discuss the concepts of orchestration, instrumentation, basic music theory, melody, functional harmony, and rhythm through the use of Sibelius and Finale. Units on song writing will discuss musical expression, writing lyrics, and writing melodies. The final project for this course will result in students using all of the skills and programs listed above to write, record, and produce their own song.

MUSIC PRODUCTION 2 – 8 1 unit each
Prerequisites: Previous level Music Production course AND teacher recommendation.
These courses study intermediate and advanced concepts related to music production, composition, and song writing. Garageband, ProTools, Sibelius, and Finale software is used with particular focus on orchestration, part-writing, and rhythm. The final project for these courses will result in students using all of the skills and programs listed above to write, record, and produce their own song. Honors credit is available for levels 3 and above. To receive honors credit students are required to complete an honors contract. Honors credit courses require students to complete an advanced curriculum with rigorous coursework that increases the level of student performance in the arts area.

ORCHESTRA 1 – 8 1 unit each
Prerequisites: Previous study AND teacher recommendation for Levels 1 and 2. Audition OR teacher recommendation for Levels 3 and above.
This course is a performance class, stressing instrumental technique and ensemble experience. Students will learn aspects of music theory and history. State orchestra events such as Regions, All-State, Solo & Ensemble festival, and Concert Performance Assessment are held each year. In order to participate in these events, students must be enrolled in the class. Students who are receiving credit for orchestra can also be involved in other auditioned performing groups such as Carolina Youth Symphony or Anderson Symphony Orchestra. Students in this course will be grouped by ability level based on audition results each spring. Honors credit is available for levels 3 and above. To receive honors credit students are required to complete an honors contract. Honors credit courses require students to complete an advanced curriculum with rigorous coursework that increases the level of student performance in the arts area.

PIANO 1 1 unit
Prerequisites: Interest survey. No audition required.
BEGINNER: This course is a study of basic piano technique. No previous musical training is required. Students will learn to read notes and rhythms so they can perform increasingly difficult pieces of piano music.

PIANO 2 – 8 1 unit each
Prerequisites: Previous level Piano course OR audition.
These courses study intermediate and advanced piano technique. Students will expand their understanding of music theory to facilitate playing advanced repertoire. Students will prepare and perform an assigned piece of music as well as sight-read for the audition. Honors credit is available for levels 3 and above. To receive honors credit students are required to complete an honors contract. Honors credit courses require students to complete an advanced curriculum with rigorous coursework that increases the level of student performance in the arts area.
THEATRE

THEATRE 2 – 8  1 unit each
Prerequisites: Audition AND teacher recommendation. These courses are designed for the experienced theatre student. The major emphasis of the program is performance. Activities center on ensemble work, monologues, improvisations, script writing, projects, and play productions. Text and lecture provide background information necessary for a number of hands-on projects including, but not limited to: script readings, performance of humorous and dramatic interpretations, monologue and duet scene presentations and script writing. Projects include a Broadway Musical Project and the study of a Shakespeare play culminating in scene performances. The technical aspects of theatre are also examined and utilized. Audition and production techniques in preparation for being a part of school, community and professional theater productions are also components of this class. Teacher recommendation for continued placement is based on class average, participation, and attendance. Honors credit is available for levels 3 and above. To receive honors credit students are required to complete an honors contract. Honors credit courses require students to complete an advanced curriculum with rigorous coursework that increases the level of student performance in the arts area.

VISUAL ARTS

3D DESIGN 1 – 8  1 unit each
Prerequisites: Audition OR teacher recommendation. Continuation in the program requires previous level course with grade B or higher. Recommended for grades 9-12. Level 1 will establish the physical and tactile aspect of the three-dimensional form and space. A variety of sculptural materials and techniques that involve planar relationships, mass, volume, and scale will be explored. Levels 2 and above will develop a deeper study of the fundamentals of three-dimensional design. A variety of media, techniques and concepts will be explored in order to emphasize more advanced principles and ideas. Projects will be individualized and of greater scope. Honors credit is available for levels 3 and above. To receive honors credit students are required to complete an honors contract. Honors credit courses require students to complete an advanced curriculum with rigorous coursework that increases the level of student performance in the arts area. There is a $10.00 fee for this course.

DRAWING AND PAINTING 1 – 8  1 unit each
Prerequisites: Audition OR teacher recommendation. Continuation in the program requires previous level course with grade B or higher. Recommended for grades 9-12. Level 1 will introduce the tools necessary for strong compositional structure. Line, space, and value will integrate areas that involve drawing concepts. Spatial relationships will be explored in painting through proportion, placement, and perspective and will be executed from direct observation. Levels 2 and above will build on observational and technical skills while increasing complexity and difficulty of subject matter. Students will continue to work on gesture, proportion, value, line, and composition with the addition of color, space, abstraction, and time. Color theory, interaction, expressiveness, and design will be considered and emphasized during the creative process. Honors credit is available for levels 3 and above. To receive honors credit students are required to complete an honors contract. Honors credit courses require students to complete an advanced curriculum with rigorous coursework that increases the level of student performance in the arts area. There is a $10.00 fee for this course.
ADVANCED PLACEMENT STUDIO ART:  
2D DESIGN  
2 units - 1 unit AP weight, 1 unit honors weight  
Prerequisites: Grades 11-12 by teacher approval only.  
The 2D Design portfolio involves purposeful decision making about how the elements and principles of 2D art are integrated. The principles and elements help guide artists in making decisions about how to organize an image in order to communicate content. In this portfolio, students are asked to demonstrate an understanding of 2D design through any two-dimensional medium or process, including but not limited to, graphic design, photography, collage, fabric design, weaving, fashion design, illustration, painting, and printmaking. There is a $10.00 fee for this course.

ADVANCED PLACEMENT STUDIO ART:  
3D DESIGN  
2 units - 1 unit AP weight, 1 unit honors weight  
Prerequisites: Grades 11-12 by teacher approval only.  
The 3D Design portfolio involves purposeful decision making about how the elements and principles of three-dimensional art are integrated. Students are asked to demonstrate their understanding of design principles as they relate to depth, space, volume, and surface. Three-dimensional approaches include, but are not limited to, figurative/nonfigurative sculpture, architectural models, metal work, ceramics, glass work, installation, performance, assemblage, and 3D fabric/fiber arts. There is a $10.00 fee for this course.

ADVANCED PLACEMENT STUDIO ART:  
DRAWING  
2 units - 1 unit AP weight, 1 unit honors weight  
Prerequisites: Grades 11-12 by teacher approval only.  
The Drawing portfolio is intended to address a very broad interpretation of drawing and media. Line quality, light and shade, rendering of form, composition, surface manipulation, the illusion of depth, and mark-making can be addressed through a variety of means, which can include painting, printmaking, mixed media, etc. Abstract, observational, and invented works may demonstrate competence and mastery. The range, arrangement, and materials used to make those marks are endless. There is a $10.00 fee for this course.

ADVANCED PLACEMENT STUDIO ART CLASSES  
The AP Studio Art portfolios are designed for students who are seriously interested in the practical experience of art. AP Studio Art is not based on a written exam; instead, students submit portfolios for evaluation at the end of the school year. AP Studio Art sets a national standard for performance in the visual arts that contributes to the significant role the arts play in academic environments. Each year the thousands of portfolios that are submitted in AP Studio Art are reviewed by college, university, and secondary school art instructors using rigorous standards. This College Board program provides the only national standard for performance in the visual arts that allows students to earn college credit and/or advanced placement while still in high school. The AP Program is based on the premise that college-level material can be taught successfully to secondary school students.
Anderson Institute of Technology (AIT)

The course offerings in this section pertain to classes offered at the Anderson Institute of Technology.

**CAREER AND TECHNOLOGY EDUCATION**

Enrollment in CATE courses is determined by equipment availability, size of laboratory, curriculum content, and overall situations related to student safety and age requirements.

**ENROLLMENT**

Courses at The Anderson Institute of Technology (AIT) are open to students enrolled in the 9th through 12th grades at Crescent High School in Anderson School District Three, Pendleton High School in Anderson School District Four and T.L. Hanna High School and Westside High School in Anderson School District Five. (Note: Students repeating 9th grade are NOT eligible to attend AIT.)

Students interested in enrolling in an AIT course will be able to select that course during registration at their high school. Enrollment for each program is limited and competitive. Admission priorities are determined by the per cent of operations cost from each district (Anderson Five 70%, Anderson Four 15% and Anderson Three 15%) Each high school and/or district may use a criteria in order to attend AIT.

**FEES**

Due to the materials used in our hands-on, dynamic, and project-based learning programs, each student attending AIT must pay a fee per course taken. Some programs will have additional costs due to required uniforms or additional supplies/safety equipment. AIT programs that require additional fees include PLTW Biomedical, Cosmetology, Fire Fighting, Health Science, Media Tech. and Film, Veterinary Science, and Welding. Please see page 59 for a complete list of fees and club/organization dues.

**DUAL ENROLLMENT/DUAL CREDIT**

Through Dual Enrollment, AIT students have the opportunity to earn college credit through Tri-County Technical College. Credits earned may be transferred to other technical colleges within the South Carolina Technical College System. Credits may also transfer to 4-year colleges and universities. AIT recommends that students contact the college(s) they wish to attend if they have questions about transferring credits earned through dual enrollment. Through Dual Credit, students have the opportunity to earn high school and college credit. The awarding of dual credit is based on each district’s policy.

**APPRENTICESHIP**

AIT is partnering with local business and industry to offer internships/apprenticeships to students. This partnership allows students to job shadow, learn a trade, and obtain a skilled job. Students can explore different fields of interest and make life long goals before graduating high school. In the internship/apprenticeship students participate in projects or work alongside practicing professionals as they manage day-to-day challenges. The major benefit of this program is that it gives students the opportunity to implement their classroom learning in the everyday world-of-work.

**SPECIAL SERVICES**

Students of all ability levels are welcome at AIT. Students who qualify for special services can enroll in classes based on their career plan, grade level, and attainment of prerequisite requirements.

**TECHNICAL ADVANCED PLACEMENT (TAP)**

Technical Advanced Placement (or "TAP") is an articulation agreement between AIT and Tri-County Technical College which provides an opportunity for students to exempt certain courses at TCTC. These TAP credits are awarded by an AIT instructor and earned after the completion of the first TCTC course with a grade of "C" or higher in the same program area.

**CAREER MAJOR CONCENTRATOR**

A career major concentrator is a secondary student who has earned 3 Carnegie units of credit in a state-recognized CATE program. A state-recognized CATE program must be comprised of an approved sequence of career and technology education courses leading to a career goal and must include a minimum of 4 Carnegie units of credit.

**CAREER MAJOR COMPLETER**

A career major completer is a CATE concentrator who has earned all of the required units in a state-recognized CATE program. A career concentrator pursing a 4-unit CATE program would be designated a completer when the 4th unit is earned. Some of the benefits of being a completer are:

- Academic subject matter taught with relevance to the real world;
- Employability skills, from job-related expertise to workplace ethics;
- Educational pathways that help students explore interests and careers while progressing through school;
- Post-secondary career pathways that include apprenticeship, industry certification, community college certificate/associate degree programs, and four-year college degree programs.

**AIT CAREER MAJOR COMPLETER**

An Anderson Institute of Technology career major completer is a student who has earned 4 units in a chosen Career Pathway as outlined by the AIT Course Guide.
HONORS FRAMEWORK

OVERVIEW
Students enrolling in the Anderson Institute of Technology will be challenged with high expectations in all programs. The curriculum and instructional framework will be structured to prepare students to become college and career ready as measured by students earning program and course certifications and successfully completing dual enrollment credit for courses relating to their program of study. All students will be required to complete a Capstone Project that may be an individual or a team project. Students enrolled in STEM completer pathways that focus on high level science and math will be required to conduct research using the AIT research framework. Students will be required to complete a four course sequence of courses that are identified in their completer pathway. The instructional method is one that requires students to own their learning, their behavior, their results and their career. Students are expected to be fully engaged and participate in a team environment and work cooperatively with student partners and adults.

STUDENT RESEARCH REQUIREMENTS FOR COURSE ONE
1. Students will be required to explore and identify problems or questions around a problem of interest related to their program of study.
2. Read a nonfiction book and present problem and how to assess.
3. Introduction of current issues around problem to be studied.
4. Review online journal articles on the topic and complete 4 per course and write a summary and present one in class.
5. Attend two lecture series presented by physicians, engineers, and/or lecturers from the community and write reflections.
6. Take college credit exam in honors identified courses.

STUDENT RESEARCH REQUIREMENTS FOR COURSE TWO
1. Identify three problems and develop three different ideas and project samples, possible solutions, and identify resources. Students will present and defend ideas. This experience will enable students to narrow down the project ideas to the final two. Students’ proposals will be reviewed by peers and Facilitator evaluation.
2. Based on peer and Facilitator feedback, students will prepare two 500-750 word written proposals with at least six cited sources for each using APA style. These summaries are submitted electronically to peer team and Facilitator. Students will receive written peer and Facilitator feedback via Edmodo to assist student in selecting problem to study.
3. Based on feedback, students will select one problem or question to study and prepare a detailed final written proposal to present to a larger community for public review of proposed problem study. This should include anticipated equipment, facilities, and procedural techniques, type of data, anticipated statistics, journal citations and possible mentors. Students will use the AIT research template to frame the research proposal and procedures for conducting the study. Teacher will provide sample research studies conducted by other students.
4. Attend as an observer the Junior Science competitions in January and Region One Science Fair at Southern Wesleyan University in March.
5. Take college credit exam and any available certifications related to the course.

STUDENT RESEARCH REQUIREMENTS FOR COURSE THREE
1. Development of procedures for conducting study and identify how the study will be conducted, process for research, conducting the study, how the problem will be assessed, and how the data will be collected and analyzed.
2. Students will continue to conduct research, solidify problem statement, turn in more research citations, and turn in modified proposal.
3. Develop model to conduct the research and begin proof of concept.
4. Take college credit exam and any related certification exams related to the course.

STUDENT RESEARCH REQUIREMENTS FOR COURSE FOUR
1. Students will continue to refine research project proposal, continue further testing, collecting data, analyzing data and presenting in writing research evidence that supports the findings in final research paper.
2. Students will participate in communicating and presenting in public in front of at least 4 Professionally Judged Competitions.
3. Competitions will include a final public presentation in May to family, community and professionals to receive final exam grade.
4. Students will provide an electronic final copy of their project to be published in the Anderson Institute of Technology Research Journal as a public record of their research and findings.

CAPSTONE PROJECT

THE FOUR COMPONENTS TO A CAPSTONE PROJECT:
1. Research (Written)
2. Find and interact with mentor
3. Develop an event, product, short film, or detailed art piece (welding), or participate in an AIT recognized internship
4. Present in front of non AIT adults

The faculty of each program will determine specific rubrics and outcomes for students based on the four components.

The Capstone Project counts as 10% of the student’s final grade in the final (4th unit) course.
Aerospace Engineering Technology
- Fundamentals of Aerospace
- Advanced Aerospace
- Aeronautics Engineering Applications
- Astronautics Engineering Applications

Agricultural Mechanics and Technology
- Agriculture and Biosystems Science
- Equipment Operation and Maintenance
- Agricultural Power Mechanics

Automotive Technology
- Automotive Technology 1
- Automotive Technology 2
- Automotive Technology 3
- Automotive Technology 4

Biomedical Sciences (PLTW)
- Principles of Biomedical Sciences
- Human Body Systems
- Medical Interventions
- Biomedical Innovation

Computer and Information Systems
Security/Information Assurance
- Cyber Security Fundamentals
- Advanced Cyber Security
- Networking Fundamentals
- Advanced Networking

Computer Science
- Computer Science Essentials
- Computer Science Principles (AP)

Cosmetology
- Cosmetology 1
- Cosmetology 2
- Cosmetology 3
- Cosmetology 4

Digital Art and Design
- Digital Art and Design 1
- Digital Art and Design 2

Electricity
- Electricity 1
- Electricity 2
- Electricity 3

Emergency and Fire Management Services
- Fire Fighter 1
- Fire Fighter 2

Global Logistics and Supply Chain Management
- Introduction to Logistics

Health Science
- Health Science 1
- Health Science 2
- Advanced Medical Terminology
- Health Science Clinical Work-Based

Horticulture
- Agriculture and Biosystems Science
- Horticulture 1
- Nursery, Greenhouse, and Garden Center Technology

Machine Technology
- Machine Tool Technology 1
- Machine Tool Technology 2
- Machine Tool Technology 3

Mechatronics Integrated Technologies
- Mechatronics 1
- Mechatronics 2
- Mechatronics 3

Media Technology
- Media Technology 1
- Media Technology 2
- Media Technology 3
- Media Technology 4 – Film Production

Networking Systems
- Networking Fundamentals
- Advanced Networking
- Cyber Security Fundamentals
- Advanced Cyber Security

Plant and Animal Systems
- Agriculture and Biosystems Science
- Animal Science
- Introduction to Veterinary Science
- Small Animal Care
- Equine Science

Pre-Engineering (PLTW)
- Introduction to Engineering Design
- Principles of Engineering
- Plus two or more of the following:
  - Civil Engineering and Architecture
  - Computer Integrated Manufacturing
  - Digital Electronics
  - Engineering Design and Development

Welding Technology
- Welding 1
- Welding 2
- Welding 3
Agricultural Mechanics and Technology
Required Courses (4 units required)
• Agriculture and Biosystems Science (1 unit)
• Equipment Operation and Maintenance (1 unit)
• Agricultural Power Mechanics (2 units)

Horticulture
Required Courses (4 units required)
• Agriculture and Biosystems Science (1 unit)
• Horticulture I (1 unit)
• Nursery, Greenhouse, and Garden Center Technology (2 units)

Plant and Animal Systems
Required courses (4 units required)
• Agriculture and Biosystems Science (1 unit)
• Animal Science (1 unit)
• Introduction to Veterinary Science (1 unit)
• Small Animal Care (1 unit)
Optional:
• Equine Science (1 unit)

AGRICULTURE AND BIOSYSTEMS SCIENCE 1 unit
Prerequisites: Algebra 1 AND English 1. Recommended for grades 9-11.
Agriculture and Biosystems is the first course for the Animal Science major and the Horticulture major. This course is designed to teach essential concepts and understanding related to plant and animal life including biotechnology, the conservation of natural resources, and the impact of agriculture and natural resource utilization on the environment. Emphasis is placed on the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and safety, and agricultural mechanical technology are included as a part of the instructional program. Each student is expected to design and participate in a supervised agricultural experience. Typical learning activities include hands-on experiences including performing basic principles of plant, soil, and animal science; studying and modeling the significance of humankind’s interrelationship with soil, water, and air; and participating in FFA activities. There is a fee for this course.

AGRICULTURAL POWER MECHANICS 2 units
Prerequisites: Equipment Operations and Maintenance. Recommended for grades 11-12.
The courses in Agricultural Mechanics are designed to qualify the student completing the courses for job entry into farm, business, or industrial phases of agricultural mechanics or to continue advanced training in post high school education. A combination of subject matter and activities is designed to teach technical knowledge and skills for entry-level positions in the operation of heavy equipment. Typical instructional activities include hands-on experiences with agricultural power units, participation in personal and community leadership development activities, and planning and participation in FFA activities. There is a fee for this course.

AGRICULTURE AND BIOSYSTEMS SCIENCE HONORS 1 unit
Prerequisites: Algebra 1 AND English 1. Recommended for grades 9-11.
Agriculture and Biosystems is the first course for the Animal Science major and the Horticulture major. This course is designed to teach essential concepts and understanding related to plant and animal life including biotechnology, the conservation of natural resources, and the impact of agriculture and natural resource utilization on the environment. Emphasis is placed on the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and safety, and agricultural mechanical technology are included as a part of the instructional program. Each student is expected to design and participate in a supervised agricultural experience. Typical learning activities include hands-on experiences including performing basic principles of plant, soil, and animal science; studying and modeling the significance of humankind’s interrelationship with soil, water, and air; and participating in FFA activities. There is a fee for this course.
ANIMAL SCIENCE  
**1 unit**  
*Prerequisites: Agriculture and Biosystems Science. Recommended for grades 9-12.*  
Animal Science is designed to provide technical knowledge and skills for entry-level positions in an animal production enterprise by developing competencies concerning the selection, breeding, physiology, nutrition, health, housing, feeding, and marketing of farm and companion animals. Typical instructional activities include hands-on experiences with the principles and practices essential in the production and management of animals and animal products for economics, recreational, and therapeutic uses; participating in personal and community leadership development activities; and participating in FFA activities. Additionally, this course will provide technical knowledge and skills for occupations in the pet industry or the companion animal industry. Skills also relate to the veterinarian or the veterinarian technician career field. There is a fee for this course.

ANIMAL SCIENCE HONORS  
**1 unit**  
*Prerequisites: Agriculture and Biosystems Science. Recommended for grades 9-12.*  
Animal Science is designed to provide technical knowledge and skills for entry-level positions in an animal production enterprise by developing competencies concerning the selection, breeding, physiology, nutrition, health, housing, feeding, and marketing of farm and companion animals. Typical instructional activities include hands-on experiences with the principles and practices essential in the production and management of animals and animal products for economics, recreational, and therapeutic uses; participating in personal and community leadership development activities; and participating in FFA activities. Additionally, this course will provide technical knowledge and skills for occupations in the pet industry or the companion animal industry. Skills also relate to the veterinarian or the veterinarian technician career field. Students must be prepared to work outside in various weather and climate conditions. There is a fee for this course.

EQUIINE SCIENCE  
**1 unit**  
*Prerequisites: Introduction to Veterinary Science. Recommended for grades 10-12.*  
The Equine Science course is designed to teach essential concepts and practical experience related to the care taking and production of horses. Instruction emphasizes knowledge and understanding of the importance of maintaining, selecting, and managing horses. Basic methods and safety techniques are included in this course. Typical instruction activities include hands-on experiences in saddling, bridling, grooming, and judging horses; feeding and health techniques; and housing design. Students must be prepared to work outside in various weather and climate conditions. There is a fee for this course.

EQUIINE SCIENCE HONORS  
**1 unit**  
*Prerequisites: Introduction to Veterinary Science. Recommended for grades 10-12.*  
The Equine Science course is designed to teach essential concepts and practical experience related to the care taking and production of horses. Instruction emphasizes knowledge and understanding of the importance of maintaining, selecting, and managing horses. Basic methods and safety techniques are included in this course. Typical instruction activities include hands-on experiences in saddling, bridling, grooming, and judging horses; feeding and health techniques; and housing design. Students must be prepared to work outside in various weather and climate conditions. The curriculum places emphasis on critical and analytical thinking, rational decision making, and inductive and deductive reasoning. There is a fee for this course.

EQUIPMENT OPERATIONS AND MAINTENANCE  
**1 unit**  
*Prerequisites: Agriculture and Biosystems Science. Recommended for grades 10-12.*  
Equipment Operation and Maintenance teaches students how to operate and maintain equipment commonly used in the agricultural industry. It includes equipment used in four of the Agriculture, Food and Natural Resources pathways: Horticulture, Plant and Animal Systems, Environmental and Natural Resources Management, and Agricultural Mechanics and Technology. The primary instructional activities include hands-on experiences with agricultural power units; participating in personal and community leadership development activities; planning and implementing a relevant school-to-work transition experience; and participating in FFA activities. There is a fee for this course.

EQUIPMENT OPERATIONS AND MAINTENANCE HONORS  
**1 unit**  
*Prerequisites: Agriculture and Biosystems Science. Recommended for grades 10-12.*  
Equipment Operation and Maintenance teaches students how to operate and maintain equipment commonly used in the agricultural industry. It includes equipment used in four of the Agriculture, Food and Natural Resources pathways: Horticulture, Plant and Animal Systems, Environmental and Natural Resources Management, and Agricultural Mechanics and Technology. The primary instructional activities include hands-on experiences with agricultural power units; participating in personal and community leadership development activities; planning and implementing a relevant school-to-work transition experience; and participating in FFA activities. There is a fee for this course.
Horticulture 1 1 unit
Prerequisites: Agriculture and Biosystems Science.
Recommended for grades 10-12.
Horticulture for the Workplace includes organized subject matter and practical experiences related to the culture of plants used principally for ornamental or aesthetic purposes. Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing ornamental horticultural enterprises. Typical instructional activities include hands-on experiences with propagating, growing, establishing, and managing nursery plants and greenhouse crops; tissue culture techniques; designing landscapes; preparing designs; sales analysis and management; participating in personal and community leadership development activities; and participating in FFA activities. There is a fee for this course.

Horticulture 1 Honors 1 unit
Prerequisites: Agriculture and Biosystems Science.
Recommended for grades 10-12.
Horticulture for the Workplace includes organized subject matter and practical experiences related to the culture of plants used principally for ornamental or aesthetic purposes. Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing ornamental horticultural enterprises. Typical instructional activities include hands-on experiences with propagating, growing, establishing, and managing nursery plants and greenhouse crops; tissue culture techniques; designing landscapes; preparing designs; sales analysis and management; participating in personal and community leadership development activities; and participating in FFA activities. This course is designed to accelerate, extend, and deepen the learning opportunities for students exhibiting superior ability. The curriculum places emphasis on critical and analytical thinking, rational decision making, and inductive and deductive reasoning. There is a fee for this course.

Introduction to Veterinary Science 1 unit
Prerequisites: Agriculture and Biosystems Science AND Animal Science. Recommended for grades 10-11.
In this advanced animal science course, students will explore the field of veterinary medicine. Students will study the role of a veterinarian and veterinary technician in the diagnosis and treatment of animal diseases. Topics to be discussed include: veterinary terminology, anatomy and physiology, pathology, genetics, handling and restraint, and physical examinations along with common surgical skills. Students will conduct independent research on selected small and large animal diseases, write and extensive research document based on their research and present their findings in a public venue. Students will also engage in a variety of laboratory activities and will participate in job shadowing and/or other school-to-work experiences, some of which may take place outdoors in various weather and climate conditions. There is a fee for this course.

Nursery, Greenhouse, and Garden Center Technology 2 units
Prerequisite: Horticulture 1. Recommended for grades 10-12.
The course in Nursery, Greenhouse and Garden Center Technology includes organized subject matter and practical experiences related to the operation and management of nursery, greenhouse or a garden center. Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing "green industry" enterprises. There is a fee for this course.

Nursery, Greenhouse, and Garden Center Technology Honors 2 units
Prerequisite: Horticulture 1 Honors. Recommended for grades 10-12.
The course in Nursery, Greenhouse and Garden Center Technology includes organized subject matter and practical experiences related to the operation and management of nursery, greenhouse or a garden center. Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing "green industry" enterprises. There is a fee for this course.

Small Animal Care 1 unit
Prerequisites: Introduction to Veterinary Science. Recommended for grades 10-12.
The Small Animal Care course is designed to teach technical knowledge and skills for occupations in the pet industry or the companion animal industry. Skills also relate to the veterinarian or the veterinarian technician career field. Typical instructional activities include hands-on experiences with cats, dogs, rabbits, fish, etc. participating in personal and community leadership development activities; and planning a relevant school to work transition experience. Students will conduct scientific research around a medical topic relating to small animals, complete an extensive paper on the findings, and present the findings in a public venue. Students must be prepared to work outside in various weather and climate conditions. There is a fee for this course.
SMALL ANIMAL CARE HONORS 1 unit
Prerequisites: Introduction to Veterinary Science. Recommended for grades 10-12.
The Small Animal Care course is designed to teach technical knowledge and skills for occupations in the pet industry or the companion animal industry. Skills also relate to the veterinarian or the veterinarian technician career field. Typical instructional activities include hands-on experiences with cats, dogs, rabbits, fish, etc. participating in personal and community leadership development activities; and planning a relevant school to work transition experience. In addition, students are required to conduct scientific research around a medical topic relating to small animals, write a thorough paper on their findings, and present this work in a public venue. Students must be prepared to work outside in various weather and climate conditions. There is a fee for this course.

ARCHITECTURE AND CONSTRUCTION CLUSTER

<table>
<thead>
<tr>
<th>Electricity</th>
<th>Required Courses (4 units required)</th>
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<tbody>
<tr>
<td></td>
<td>Electricity 1 (2 units)</td>
</tr>
<tr>
<td></td>
<td>Electricity 2 (2 units)</td>
</tr>
<tr>
<td>Optional:</td>
<td>Electricity 3 (2 units)</td>
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ELECTRICITY 1 2 units
Prerequisites: Algebra 1 AND English 1 with grade C or higher in each. Recommended for grades 10-11.
The Electricity 1 program is designed to prepare students for entry-level employment as an electrician or in related occupations. Electricity students receive instruction in AC and DC circuitry, communication skills, leadership skills, human relations and employability skills, safety, effective work practices, and in the installation, operation, maintenance, and repair of residential and commercial electrical systems. Laboratory activities provide instruction in all phases of residential and commercial electrical wiring in accordance with the National Electrical Code. Students are introduced to Smart Technology to manage systems. There is a fee for this course.

ELECTRICITY 2 2 units
Prerequisites: Electricity 1 with grade C or higher. Recommended for grades 11-12.
Electricity 2 is a continuation of Electricity I. Electricity students receive advanced instruction in AC and DC circuitry, communication skills, leadership skills, human relations and employability skills, safety, effective work practices, and in the installation, operation, repair and maintenance residential. This course will also focus on the installation, repair, and maintenance of commercial and industrial electrical systems. Laboratory activities provide instruction in all phases of residential, commercial, and industrial electrical wiring in accordance with the National Electrical Code. Students will continue work with Smart Technology to manage systems. Technical Advanced Placement may be available through some SC technical colleges. There is a fee for this course.

ELECTRICITY 3 2 units
Prerequisites: Electricity 2 with grade C or higher. Recommended for grades 11-12.
Electricity 3 will provide a survey of the theory, terminology, equipment, and practical experience in the skills needed for careers in the electrical field. This course typically includes safety, and the National Electrical Code and may cover such skills as those involved in building circuits; wiring residential, commercial, and/or industrial buildings; installing lighting, power circuits, cables, and smart systems; and estimating job costs. As students progress, their projects become more complex and expansive. A career exploration component may be offered. Technical Advanced Placement may be available through some SC technical colleges. There is a fee for this course.
**MEDIA TECHNOLOGY 1** 1 unit  
**Prerequisite:** Algebra 1 AND English 1 with grade C or higher in each. Recommended for grades 10-12.  
Students taking this course will explore the general field of visual communications and will focus primarily on the television and filmmaking industries. Students will get hands-on experience in basic production techniques and will produce video projects for various purposes and audiences. Students will learn to use digital video cameras as well as non-linear editing systems. When possible, students may take field trips; have guest speakers from the media industry and shadow professionals in the field. There is a fee for this course.

**MEDIA TECHNOLOGY 2** 1 unit  
**Prerequisite:** Media Technology 1 with grade C or higher. Recommended for grades 10-12.  
In this course, students will continue to develop their media production skills by writing, producing, directing, shooting and editing video pieces of increasing complexity. Second-year students will continue to develop expertise with professional digital video cameras and non-linear editing systems. A greater focus will be placed on careers in the visual communications industry. Students will begin to specialize in one particular area of mass communications and media production, developing a final project in this area as well as pursuing professional relationships within the industry. This curriculum, methods, and assessments indicate an increased depth of rigor, complexity, challenges, and creativity beyond the CP level course. This course is designed to accelerate, extend, and deepen the learning opportunities for students exhibiting superior ability. The curriculum places emphasis on critical and analytical thinking, rational decision making, and inductive and deductive reasoning. There is a fee for this course.

**MEDIA TECHNOLOGY 3** 1 unit  
**Prerequisites:** Media Technology 2 with grade C or higher AND teacher recommendation. Recommended for grades 10-12.  
This course is an introduction to digital photography using digital cameras and basic image editing software. This course requires no past experience with photography, but it is recommended that the student have a passion for taking and editing photographs. This course includes print production for making black-and-white and color photographs, and studio techniques that include use of Chroma key, portrait lighting, and location, still, scenic, fashion, and portrait photography. A majority of student assignments will be completed outside of the classroom. Some assignments will require students to walk downtown as a group with the instructor during class time to complete projects. Students will work with a partner throughout the course. Students will create and share a photographic portfolio at the end of the course. There is a fee for this course.

**MEDIA TECHNOLOGY 4:** FILM PRODUCTION 1 unit  
**Prerequisites:** Media Technology 3 with grade C or higher AND teacher recommendation. Recommended for grades 12.  
This capstone course is designed to provide students an introduction to the four basic phases of filmmaking that include development, pre-production, production and post-production. The course covers higher level critical and problem solving skills with an emphasis in digital filmmaking. Students will write, produce, direct, shoot and edit their own short films as upperclassmen projects. These works will be screened in a public venue. There is a fee for this course.

**MEDIA TECHNOLOGY 4 HONORS:** FILM PRODUCTION 1 unit  
**Prerequisites:** Media Technology 3 with grade C or higher AND teacher recommendation. Recommended for grades 12.  
This capstone course is designed to provide students an introduction to the four basic phases of filmmaking that include development, pre-production, production and post-production. The course covers higher level critical and problem solving skills with an emphasis in digital filmmaking. Students will write, produce, direct, shoot and edit their own short films as upperclassmen projects. These works will be screened in a public venue. This course is designed to accelerate, extend, and deepen the learning opportunities for students exhibiting superior ability. The curriculum places emphasis on critical and analytical thinking, rational decision making, and inductive and deductive reasoning. There is a fee for this course.
DIGITAL ART AND DESIGN 1  2 units
Prerequisites: Algebra 1 AND English 1 with grade C or higher in each. Recommended for grades 10-12.
The Digital Art and Design program prepares students for careers in the graphic design field. Skills may be applied in any media, such as print, digital media, product design, packaging, etc. Most of the standards require students to combine text and graphics to communicate an effective message in the format intended for commercial reproduction. Students are also expected to use industry software and design concepts, principles, and processes to manipulate text and graphics, utilize and output appropriate file formats for Web and print, and meet client expectations. There is a fee for this course.

DIGITAL ART AND DESIGN 2  2 units
Prerequisites: Digital Art and Design 1 with grade C or higher. Recommended for grades 10-12.
This course is a continuation of Digital Art and Design 1 and includes further study in the graphic field. It also includes portfolio development and presentation, along with a focus on job resume application and interview. Students may be eligible to participate in cooperative Work experiences or apprenticeships, which combine career and technology training with supervised work experience in business and industry. There is a fee for this course.

HEALTH SCIENCE CAREER CLUSTER

<table>
<thead>
<tr>
<th>Biomedical Sciences PLTW Required Courses (4 units required)</th>
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<tbody>
<tr>
<td>• Principles of Biomedical Sciences (1 unit)</td>
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<tr>
<td>• Human Body Systems (1 unit)</td>
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<tr>
<td>• Medical Interventions (1 unit)</td>
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<td>• Biomedical Innovation (1 unit)</td>
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<tr>
<th>Health Science Required Courses (4 units required)</th>
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<td>• Health Science 1 (2 units)</td>
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<td>• Health Science 2 (2 units)</td>
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<th>Optional:</th>
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<tr>
<td>• Health Science, Advanced Medical Terminology (2 units)</td>
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<tr>
<td>• Health Science, Clinical Work-Based (2 units)</td>
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</tbody>
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BIOMEDICAL INNOVATION (PLTW)  1 unit
Prerequisites: Human Body Systems OR Principles of Biomedical Sciences with grade C or higher. Recommended for grades 11-12.
In Biomedical Innovations, students design and conduct experiments related to the diagnosis, treatment, and prevention of disease or illness. They apply their knowledge and skills to answer questions to solve problems related to the biomedical sciences. Throughout the course, students are expected to present the results of their work to an adult audience. There is a fee for this course.

BIOMEDICAL INNOVATION (PLTW) HONORS  1 unit
Prerequisites: Human Body Systems Honors OR Principles of Biomedical Sciences Honors with grade C or higher. Recommended for grades 11-12.
This course includes topics typically taught in Biomedical Innovations but at an accelerated pace and in greater depth. Additional activities will be required. There is a fee for this course.

HEALTH SCIENCE 1  2 units
Prerequisites: Algebra 1 AND English 1 with grade C or higher in each. Recommended for grades 10-11.
This course is designed to introduce students to the health career field. Through classroom and laboratory instruction, students will learn medical, legal and ethical responsibilities, the potential risks associated with bioterrorism, and the impact on health care workers as they rise to meet the challenging medical crises of the future. Students will also gain knowledge of medical terminology along with anatomy and physiology. Computer programs, demonstrations, guest speakers and models are utilized to enhance the students learning. There is a fee for this course.

HEALTH SCIENCE 2  2 units
Prerequisites: Health Science 1 with grade B or higher AND teacher recommendation. Recommended for grades 11-12.
Laboratory experience will offer students the opportunity to develop skills in infection control, vital signs, medical assisting, laboratory assisting, sterile techniques and medical abbreviations. This course will focus on skills for careers in the fields of nursing and physical therapy. Students will learn basic CPR and First Aid. At the completion of this course the student will be eligible for CPR and First Aid certification. There is a fee for this course.

HEALTH SCIENCE: ADVANCED MEDICAL TERMINOLOGY  2 units
Prerequisites: Health Science 2 with grade B or higher. Grade 12 only.
A portion of this course is for college credit (TAP Credit) in medical terminology. This course covers disease processes and how human systems are affected. Students may qualify to take the final exam for AHS-104 given by Tri-County Technical College. There is a fee for this course.
HEALTH SCIENCE:
CLINICAL WORK-BASED 2 units
Prerequisites: Health Science 2 with grade B or higher AND CPR Certification AND transportation AND 2-step PPD Skin (TB) Test. Grade 12 only.
This class will focus on advanced skills in the lab and health field including nurse assistant skills and direct patient care. Students will have clinical experiences in various health care facilities and earn a CNA certificate if all requirements are met.

MEDICAL INTERVENTIONS
HONORS (PLTW) 1 unit
Prerequisites: Human Body Systems Honors AND Principles of Biomedical Science Honors with grade C or higher in each. Recommended for grades 11-12.
This course includes topics typically taught in Medical Interventions but at an accelerated pace and in greater depth. Additional activities will be required. There is a fee for this course.

HUMAN BODY SYSTEMS (PLTW) 1 unit
Prerequisites: Biology with grade B or higher (or currently enrolled) AND Algebra 1 and English 1 with grade B or higher in each. Recommended for grades 10-11.
In this course students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real world cases and often play the roles of biomedical professionals to solve medical mysteries. There is a fee for this course.

PRINCIPLES OF BIOMEDICAL SCIENCE (PLTW) 1 unit
Prerequisites: Algebra 1 AND English 1 with grade B or higher in each AND Biology 1 CP with grade B or higher OR Biology 1 Honors with grade C or higher. Recommended for grades 10-11.
In Principles of Biomedical Sciences, students investigate various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. They determine the factors that led to the death of a fictional person, and investigate lifestyle choices and medical treatments that might have prolonged the person’s life. The activities and projects introduce students to human physiology, medicine, and research Processes. This course provides an overview of all the courses in the Biomedical Sciences program and lays the scientific foundation for subsequent courses. There is a fee for this course.

HUMAN BODY SYSTEMS HONORS (PLTW) 1 unit
Prerequisites: Biology with grade A (or currently enrolled) AND Algebra 1 and English 1 Honors with grade B or higher in each OR Algebra 1 and English 1 CP with grade A. Recommended for grades 10-11.
This course includes topics typically taught in Human Body Systems but at an accelerated pace and in greater depth. Additional activities will be required. There is a fee for this course.

PRINCIPLES OF BIOMEDICAL SCIENCE HONORS (PLTW) 1 unit
Prerequisites: Algebra 1 AND English 1 with grade B or higher in each AND Biology 1 CP with grade A OR Biology 1 Honors with grade B or higher. Recommended for grades 10-11.
This course includes topics typically taught in Principles of Biomedical Science but at an accelerated pace and in greater depth. Additional activities will be required. There is a fee for this course.

MEDICAL INTERVENTIONS
HONORS (PLTW) 1 unit
Prerequisites: Human Body Systems Honors AND Principles of Biomedical Science Honors with grade C or higher in each. Recommended for grades 11-12.
This course includes topics typically taught in Medical Interventions but at an accelerated pace and in greater depth. Additional activities will be required. There is a fee for this course.
COSMETOLOGY 1  
**2 units**
Prerequisites: Current 11th grader AND Algebra 1 AND English 1 with grade C or higher in each AND Pre-entry Interview. This course introduces students to the field of cosmetology and the related cosmetics arts. Training is done in the classroom and lab. Students will learn basic manipulative skills, safety judgments, proper work habits, professionalism, and desirable attitudes necessary to begin a career as a certified cosmetologist. This course of study includes orientation, safety, life skills, management, professional image, communicating for success, infection control, anatomy and physiology, electricity, properties of the hair, principles of hair design, shampooing, conditioning, haircutting, wet hairstyling, thermal hairstyling, thermal styling, and braiding. Students will only work on mannequins in lab work. Student kits will stay at school until student has been trained to use them. There is a fee for this course. Please refer to the fee sheet on page 59.

COSMETOLOGY 2  
**2 units**
Prerequisites: Current 11th grader AND Cosmetology 1 with grade C or higher AND 250 Cosmetology Hours AND English 2 with grade C or higher AND Math unit with grade C or higher AND teacher recommendation. This course is a continuation of Cosmetology 1. Training is done in the classroom and lab. Students will continue working to perfect the skills previously learned in Cosmetology 1. In this class students will learn nail diseases and disorders; properties of the hair, scalp, and nails; manicure; pedicure; principles of hair design; and chemical texture service. Students will be able to perform service for the public in a student service salon and will also continue to work on mannequins. Students who are ready will start competing in state and national level competitions. The fee for this course is included in Cosmetology 1.

COSMETOLOGY 3  
**2 units**
Prerequisites: Entering 12th grade AND Cosmetology 2 with grade C or higher AND 550 Cosmetology hours. This course is a continuation of Cosmetology 2. The students will work on perfecting the skills previously studied. In addition, this course will include hair relaxing, color theory, hair color, and study of the skin, facials, makeup, and hair removal. There is a fee for this course. Please refer to the fee sheet on page 59.

COSMETOLOGY 4  
**2 units**
Prerequisites: Entering 12th grade AND Cosmetology 3 with grade C or higher AND 750 Cosmetology hours. This class will prepare the students to take the SC State Board of Cosmetology written and practical exams, salon management, business skills, and job seeking skills. In order to receive credit for the class the student must have earned a minimum of 1000 hours in cosmetology and is required to take SC State Board exams. The fee for this course is included in Cosmetology 2.
### INFORMATION TECHNOLOGY CAREER CLUSTER

#### Computer and Information Systems Security/Information Assurance

**Required Courses (4 units required)**
- • Cyber Security Fundamentals (1 unit)
- • Advanced Cyber Security (1 unit)

**Plus the following:**
- • Networking Fundamentals (1 unit)
- • Advanced Networking (1 unit)

#### Networking Systems

**Required Courses (4 units required)**
- • Networking Fundamentals (1 unit)
- • Advanced Networking (1 unit)

**Plus the following:**
- • Cyber Security Fundamentals (1 unit)
- • Advanced Cyber Security (1 unit)

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### ADVANCED CYBERSECURITY 1 unit

**Prerequisite:** Cybersecurity Fundamentals with grade C or higher. Recommended for grades 10-12.

This course explores the field of information security and assurance with updated content including new innovations in technology and methodologies. It builds on existing concepts introduced in Cyber Security Fundamentals and expands into malware threats, cryptography, organizational security, and wireless technologies. This is the second of two courses that prepare the student to take the CompTIA Security+ certification exam. This course meets the computer science requirement for graduation. There is a fee for this course.

### ADVANCED CYBERSECURITY HONORS 1 unit

**Prerequisite:** Cybersecurity Fundamentals with grade C or higher. Recommended for grades 10-12.

This course explores the field of information security and assurance with updated content including new innovations in technology and methodologies. It builds on existing concepts introduced in Cyber Security Fundamentals and expands into malware threats, cryptography, organizational security, and wireless technologies. This is the second of two courses that prepare the student to take the CompTIA Security+ certification exam. Honors student will identify and research three advanced cyber security problems, develop three different resolution ideas/projects (simple, possible with unlimited resource) and preset and defend ideas. Students should be peer and teacher evaluated. This course meets the computer science requirement for graduation. There is a fee for this course.

### ADVANCED NETWORKING 1 unit

**Prerequisites:** Networking Fundamentals with grade C or higher. Recommended for grades 10-12.

This course is designed to provide students with more classroom and laboratory experience in current and emerging networking technologies. Students who continue Advanced Networking design and build complex networks. Upon successful completion of this course, students are able to seek employment or further their education and training in the information technology field. Particular emphasis is given to techniques found in math and communication programs. This course meets the computer science requirement for graduation. There is a fee for this course.

### ADVANCED NETWORKING HONORS 1 unit

**Prerequisites:** Networking Fundamentals with grade C or higher. Recommended for grades 10-12.

This course is designed to provide students with more classroom and laboratory experience in current and emerging networking technologies. Students who continue Advanced Networking design and build complex networks. Upon successful completion of this course, students are able to seek employment or further their education and training in the information technology field. Particular emphasis is given to techniques found in math and communication programs. This course meets the computer science requirement for graduation. There is a fee for this course.

### CYBERSECURITY FUNDAMENTALS 1 unit

**Prerequisite:** Networking Fundamentals with grade C or higher. Recommended for grades 10-12.

Cyber Security Fundamentals introduces the basic concepts and terminology of cyber security and information assurance. The course examines how the concept of security integrates into the importance of user involvement, security training, ethics, trust, and best practices management. The fundamental skills cover internal and external threats to network security and design, how to enforce network level security policies, how to protect an organization’s information, and a broad range of other topics. This course meets the computer science requirement for graduation. There is a fee for this course.

### CYBERSECURITY FUNDAMENTALS HONORS 1 unit

**Prerequisite:** Networking Fundamentals with grade C or higher. Recommended for grades 10-12.

Cyber Security Fundamentals introduces the basic concepts and terminology of cyber security and information assurance. The course examines how the concept of security integrates into the importance of user involvement, security training, ethics, trust, and best practices management. The fundamental skills cover internal and external threats to network security and design, how to enforce network level security policies, how to protect an organization’s information, and a broad range of other topics. Honor students will identify and research three cyber security problems, develop three different resolution ideas/projects (simple, possible with unlimited resources), and present and defend ideas. Students should be peer and teacher evaluated. This course meets the computer science requirement for graduation. There is a fee for this course.
NETWORKING FUNDAMENTALS 1 unit
Prerequisites: Algebra 1 AND English 1 with grade C or higher in each. Recommended for grades 10-12.
This course covers networking fundamentals and serves as an introductory-level experience for students who are interested in studying network administration. Networking Fundamentals covers the preliminary essentials that a network engineer must know to survive and excel in this rapidly growing industry. Specifically, the course covers the basics of physical layer connectivity, network topologies, and general networking concepts as well as a complete overview of how networking works. Networking is designed to provide students with classroom and laboratory experience in current and emerging networking technologies. Upon successful completion of these courses, students will be able to seek employment or further their education and training in the information technology field. The networking student will benefit most from the curriculum if he or she possesses a strong background in reading, math, and problem solving skills. Particular emphasis is given to the use of critical thinking skills and problem-solving techniques found in math and communication programs. This course meets the computer science requirement for graduation. There is a fee for this course.

NETWORKING FUNDAMENTALS HONORS 1 unit
Prerequisites: Algebra 1 and English 1 with grade C or higher in each. Recommended for grades 10-12.
This course covers networking fundamentals and serves as an introductory-level experience for students who are interested in studying network administration. Networking Fundamentals covers the preliminary essentials that a network engineer must know to survive and excel in this rapidly growing industry. Specifically, the course covers the basics of physical layer connectivity, network topologies, and general networking concepts as well as a complete overview of how networking works. Networking is designed to provide students with classroom and laboratory experience in current and emerging networking technologies. Upon successful completion of these courses, students will be able to seek employment or further their education and training in the information technology field. The networking student will benefit most from the curriculum if he or she possesses a strong background in reading, math, and problem solving skills. Particular emphasis is given to the use of critical thinking skills and problem-solving techniques found in math and communication programs. Honor students will identify and research three computer networking problems, develop three different resolution ideas/projects and defend ideas. Students should be peer and teacher evaluated. This course meets the computer science requirement for graduation. There is a fee for this course.

FIRE FIGHTER 1 2 units
Prerequisites: 16 years old; Algebra 1 AND English 1 with grade C or higher in each. Recommended for grades 10-12.
This course includes an overview of the functions and history of the fire service with emphasis on fire suppression and earning the South Carolina Fire Academy Firefighter I certification. After meeting prerequisites students will be enrolled in a formal Firefighter I class. The class will integrate individual online learning along with practical skills sessions along with live fire training opportunities. Final evaluations will be written and practical conducted through the South Carolina Fire Academy. Upon successful completion of the testing and Hazmat Operations, a Fire Fighter I (FF1) certificate will be issued. There is a fee for this course.

FIRE FIGHTER 2 2 units
Prerequisites: Fire Fighter 1 certification (FF1) with grade C or higher. Recommended for grades 10-12.
This course is designed to take the student to the final level of firefighter, as recognized by the National Fire Protection Association (NFPA) and the International Fire Service Accreditation Congress (IFSAC). Subjects include incident management, building collapse and special rescue, hose tools and appliances, hydrant flow and operability, fire detection and alarm systems, fire cause, pre-incident planning, reports and communications and coordinating fire attack. Courses in advanced first aid and Basic Automobile Extrication will also be covered. Upon successful completion of written and skills testing, the firefighter will receive international recognition as a Firefighter II. There is a fee for this course.

LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY CAREER CLUSTER

Emergency and Fire Management Services
Required Courses (4 units required)
- Fire Fighter 1 (2 units)
- Fire Fighter 2 (2 units)
MANUFACTURING CAREER CLUSTER

Machine Technology
Required Courses (4 units required)
- Machine Tool Technology 1 – Introduction (2 units)
- Machine Tool Technology 2 – Intermediate (2 units)
Optional:
- Machine Tool Technology 3 – Advanced (2 units)

Mechatronics Integrated Technologies
Required Courses (4 units required)
- Mechatronics 1 (2 units)
- Mechatronics 2 (2 units)
Optional:
- Mechatronics 3 (2 units)

Welding Technology
Required Courses (4 units required)
- Welding 1 (2 units)
- Welding 2 (2 units)
Optional:
- Welding 3 (2 units)

MACHINE TOOL TECHNOLOGY 1 2 units
Prerequisites: Algebra 1 AND English 1 with grade C or higher in each. Recommended for grades 10-11.
This introductory course is designed to familiarize students with basic skills required by a machinist in the modern machine shop. Basics of shop safety, machine operation, print reading, precision measurement, layout work, and bench work will be mastered by the student. A good understanding of fractions, decimal fractions, and metric measurement is necessary. There is a fee for this course.

MACHINE TOOL TECHNOLOGY 2 2 units
Prerequisites: Machine Tool Technology 1 with grade C or higher AND teacher recommendation. Recommended for grades 11-12.
This intermediate course is designed to train students to have employable skills in local machine shops or to enter a post-secondary program at an advanced level. While it takes years to become a skilled machinist, the level 2 completer will be able to enter the workforce on an apprentice level with a good knowledge and skill development of all required SC machine technology competencies. Instruction will be offered in the basics of Computer Numerical Control machining as well as MIG, ARC, and gas welding. Technical Advanced Placement may be available through some SC technical colleges. There is a fee for this course.

MACHINE TOOL TECHNOLOGY 3 2 units
Prerequisites: Machine Tool Technology 2 with grade C or higher. Recommended for grades 11-12.
This advanced course in Machine Technology is designed to prepare students for postsecondary Computer Numerical Control machining and entry level skills as a CNC operator/programmer. HAAS trainers as well as HAAS and Bridgeport CNC milling machines will be used to train students in real world machining and programming situations. There is a fee for this course.

MECHATRONICS 1: ELECTRICAL COMPONENTS/INDUSTRIAL SAFETY 2 units
Prerequisites: Algebra 1 AND English 1 with grade C or higher in each. Recommended for grades 10-12.
Mechatronics is a new interdisciplinary field involving mechanical, instrumentation, electronics, robotics/automation, computer components, and control systems. The program prepares students who like to work with their hands as well as their minds. Mechatronics is a dynamic field that changes daily with the rapid improvements in technology and computer systems. Systems are networked to meet the demands of automated manufacturing processes, and technicians are trained to meet necessary entry level industrial skills and entry into a postsecondary program at a technical college. Mechatronics 1 will focus on direct and alternating circuit theory. The course is designed for students to gain a comprehensive knowledge of direct current (DC) circuit theory and progress to the study of alternating current (AC) circuit theory. DC will include electron theory, Ohm’s Law, electrical quantities, and series, parallel, and combination circuits. AC will include electromagnetism, resistive, inductive, and capacitive circuits, transformers, and single and three phase power. DC/AC circuits will involve design, analysis, construction, and troubleshooting of both types of circuits, as well as, electrical safety, and testing instruments. Technical Advanced Placement or Dual credit may be available through some SC technical colleges. There is a fee for this course.
MECHATRONICS 2: MECHANICAL COMPONENTS ELECTRIC DRIVES/HAND AND POWER TOOL OPERATIONS 2 units
Prerequisites: Mechatronics 1 AND teacher recommendation. Recommended for grades 10-12.
Mechatronics 2 involves the principles of electrical and fluid power control and output devices. Beginning with electrical control devices, students will study AC and DC motors, motor control, and general machine operations in a complex mechatronic system. Students will learn the functions and properties of machine control elements along with output devices and the roles they play within an industrial system. Topics covered will include general machine operations and motor control techniques; mechanical components and electric drives; motor sensors, braking and loads; motor efficiency and power; preventive measures and troubleshooting techniques. The second part of Mechatronics 2 will involve pneumatic and hydraulic devices and controls related to fluid power. Topics will include directional control valves, actuators and cylinders, flow control, pressure control, pumps and regulators, electro-pneumatic control applications and devices. Students will develop, construct, analyze, and troubleshoot both electrical control and fluid power control circuits as related to industrial systems. Programmable Logic Control devices will also be an integral part of these systems related to the automation control of industrial applications. Technical documentation such as data sheets, circuit diagrams, schematics, displacement step diagrams and function charts will be used for students to perform measurements on motors, motor control circuits, and fluid power systems, allowing them to apply troubleshooting strategies to identify, localize and correct malfunctions. Safety issues within these systems will also be discussed. Technical Advanced Placement or Dual credit may be available through some SC technical colleges. There is a fee for this course.

MECHATRONICS 3: ELECTROPNEUMATICS AND HYDRAULICS 2 units
Prerequisites: Mechatronics 2 AND teacher recommendation. Recommended for grades 10-12.
Mechatronics 3 will provide a survey of the theory, terminology, equipment, and practical experience in the skills needed for careers in this area. This course offers students the opportunity to develop advanced skills in project-based or internship-based experiences. As students progress, their projects become more complex and expansive. A career exploration component may be offered. There is a fee for this course.

WELDING TECHNOLOGY 1 2 units
Prerequisites: Algebra 1 AND English 1 with grade C or higher in each. Recommended for grades 11-12.
This course focuses on the physical properties of metals as well as the testing of welded joints. Students will identify safety hazards associated with cutting, grinding, and welding. Students will develop skills needed in order to frame cut, set up and operate shielded metal arc equipment, produce fillet welds in all positions and groove welds in 2, 3, and 4F positions using the stick weld process. At the completion of this course, successful students will be eligible to test for the AWS D1.1 certification. There is a fee for this course.

WELDING TECHNOLOGY 2 2 units
Prerequisites: Welding Technology 1 with grade C or higher. Recommended for grades 11-12.
Welding 2 concentrates on the study of advanced cutting and welding techniques. Students fabricate projects from blueprints and design projects. Students will learn gas metal arc (GMAW) and inert gas (GTAW) welding techniques to include set up and operation of equipment, preparation and fit-up of metals, and the execution of welds. With the completion of Welding 2, Technical Advanced Placement may be available through some SC technical colleges. There is a fee for this course.

WELDING TECHNOLOGY 3 2 units
Prerequisites: Welding Technology 2 with grade C or higher. Recommended for grades 11-12.
Welding 3 will provide a survey of the theory, terminology, equipment, and practical experience in the skills needed for careers in this area. This course offers students the opportunity to develop advanced welding skills in project-based or internship-based experiences. As students progress, their projects become more complex and expansive. A career exploration component may be offered. There is a fee for this course.

NOTE: Art students will have the opportunity to design and develop sculpture in Welding courses.
PLTW – Project Lead the Way pathways engage students in hands-on activities, projects, and problems and empower them to solve real-world challenges.

### Aerospace Engineering Technology
**Required Courses (4 units required)**
- Fundamentals of Aerospace (1 unit)
- Advanced Aerospace Technology (1 unit)
- Aeronautics Engineering Applications (1 unit)
- Astronautics Engineering Applications (1 unit)

### Computer Science
**Required Courses (4 units required)**
- Computer Science Essentials (2 units)
- Computer Science Principles AP (1 unit)
- Computer Science Principles AP Lab (1 unit)

### Pre-Engineering PLTW
**Required Courses (4 units required)**
- Introduction to Engineering Design (1 unit)
- Principles of Engineering (1 unit)
- Civil Engineering and Architecture (1 unit)
- Computer Integrated Manufacturing (1 unit)
- Digital Electronics (1 unit)
- Engineering Design and Development (1 unit)

### AERONAUTICS ENGINEERING APPLICATIONS 1 unit
**Prerequisites:** Fundamentals of Aerospace Technology and Advanced Aerospace Technology. Recommended for grades 10-12.
This project-based learning course is for students who have successfully completed Courses 1 and 2. Students will learn about systems such as flight control, remote-control vehicles and the virtual world. Students will learn to fly using flight simulators. They will work collaboratively to propose a shift from a VOR navigation system to a GPS system and determine the cost savings. In addition, students will develop rotor blades for helicopters and design and program an unmanned flying vehicle. There is a fee for this course.

### AERONAUTICS ENGINEERING APPLICATIONS HONORS 1 unit
**Prerequisites:** Fundamentals of Aerospace Technology and Advanced Aerospace Technology. Recommended for grades 10-12.
This project-based learning course is for students who have successfully completed Courses 1 and 2. Students will learn about systems such as flight control, remote-control vehicles and the virtual world. Students will learn to fly using flight simulators. They will work collaboratively to propose a shift from a VOR navigation system to a GPS system and determine the cost savings. In addition, students will develop rotor blades for helicopters and design and program an unmanned flying vehicle. This course is designed to accelerate, extend, and deepen the learning opportunities for students exhibiting superior ability. The curriculum places emphasis on critical and analytical thinking, rational decision making, and inductive and deductive reasoning. There is a fee for this course.

### ADVANCED AEROSPACE TECHNOLOGY 1 unit
**Prerequisites:** Geometry CP with grade C or higher OR Geometry Honors. Recommended for grades 9-12.
This course builds on the fundamentals of aerospace of technology and engages students in applying the design process, using tools to collect and analyze data, exploring a deeper level of the science of aviation and discovering how quality control systems work in the aviation field. Students will work collaboratively in teams to design, build and test a wing; plot a course for a plane to take off and land; design, build and test a wing attachment system; test materials under stress; and design, build and test an electric-powered plane. Students will demonstrate their newly acquired knowledge and skills by presenting their innovative ideas, techniques and solutions to business and industry partners. There is a fee for this course.

### ADVANCED AEROSPACE TECHNOLOGY HONORS 1 unit
**Prerequisites:** Geometry CP with grade C or higher OR Geometry Honors. Recommended for grades 9-12.
This course builds on the fundamentals of aerospace of technology and engages students in applying the design process, using tools to collect and analyze data, exploring a deeper level of the science of aviation and discovering how quality control systems work in the aviation field. Students will work collaboratively in teams to design, build and test a wing; plot a course for a plane to take off and land; design, build and test a wing attachment system; test materials under stress; and design, build and test an electric-powered plane. Students will demonstrate their newly acquired knowledge and skills by presenting their innovative ideas, techniques and solutions to business and industry partners. There is a fee for this course.
ASTRONAUTICS ENGINEERING APPLICATIONS  1 unit

Students in this capstone course will focus on outer space and underwater applications. During the six projects, they will work collaboratively to design, build and test a laser communication system; develop a plan for space survivability in hostile environments; and utilize software to create a three-dimensional model of a satellite orbit and a team remote vehicle for underwater exploration. Depending on articulation agreements or state policy, students who successfully complete the course may be able to earn dual credit. There is a fee for this course.

ASTRONAUTICS ENGINEERING APPLICATIONS HONORS  1 unit

Students in this capstone course will focus on outer space and underwater applications. During the six projects, they will work collaboratively to design, build and test a laser communication system; develop a plan for space survivability in hostile environments; and utilize software to create a three-dimensional model of a satellite orbit and a team remote vehicle for underwater exploration. Depending on articulation agreements or state policy, students who successfully complete the course may be able to earn dual credit. This course is designed to accelerate, extend, and deepen the learning opportunities for students exhibiting superior ability. The curriculum places emphasis on critical and analytical thinking, rational decision making, and inductive and deductive reasoning. There is a fee for this course.

CIVIL ENGINEERING AND ARCHITECTURE (PLTW)  1 unit
Prerequisites: Introduction to Engineering Design AND Algebra 1 with grade C or higher in each AND currently enrolled in Geometry or higher level math. Recommended for grades 10-11.

Civil Engineering and Architecture provides an overview of the fields of Civil Engineering and Architecture while emphasizing the interrelationship and dependence of both fields on each other. Students use state of the art software to solve real world problems and communicate solutions to hands-on projects and activities. This course covers such topics as the roles of civil engineers and architects, project planning, site planning, building design, and project documentation and presentation. There is a fee for this course.

CIVIL ENGINEERING AND ARCHITECTURE HONORS (PLTW)  1 unit
Prerequisites: Introduction to Engineering Design Honors AND Algebra 1 with grade B or higher in each AND currently enrolled in Geometry with grade B or higher in each AND Geometry with grade B or higher in each AND currently enrolled in an Algebra 2 course OR teacher recommendation. Recommended for grades 10-11.

This course is designed for students who have been highly successful in Introduction to Engineering Design Honors and Principles of Engineering Honors and are planning to major in some field of engineering. It includes engineering topics typically taught in Civil Engineering and Architecture but at an accelerated pace and in greater depth. Additional activities and projects will be required. Students will also be required to take the college component of the end of course examination. There is a fee for this course.

COMPUTER INTEGRATED MANUFACTURING (PLTW)  1 unit
Prerequisites: Introduction to Engineering Design AND Algebra 1 with grade C or higher in each AND currently enrolled in Geometry or higher level math. Recommended for grades 10-11.

Computer Integrated Manufacturing is a course that applies principles of rapid prototyping, robotics, and automation. This course builds upon the computer solid modeling skills developed in Introduction to Engineering Design. Students will use computer-controlled rapid prototyping and CNC equipment to solve problems by constructing actual models of their three-dimensional designs. Students will also be introduced to the fundamentals of robotics and how this equipment is used in an automated manufacturing environment. Students will evaluate their design solutions using various techniques of analysis, and make appropriate modifications before producing their prototypes. There is a fee for this course.

COMPUTER INTEGRATED MANUFACTURING HONORS (PLTW)  1 unit
Prerequisites: Introduction to Engineering Design Honors AND Algebra 1 with grade B or higher in each AND currently enrolled in an Algebra 2 course OR teacher recommendation. Recommended for grades 10-11.

This course is designed for students who have been highly successful in Introduction to Engineering Design Honors and are planning to major in some field of engineering. It includes engineering topics typically taught in Computer Integrated Manufacturing but at an accelerated pace and in greater depth. Additional activities and projects will be required. Students will also be required to take the college component of the end of course examination. There is a fee for this course.
COMPUTER SCIENCE ESSENTIALS 2 units
Prerequisites: Algebra 1 AND English 1 with grade C or higher in each AND currently enrolled in Geometry or higher level math. Recommended for grades 10-11.

Computer Science Essentials exposes students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence. Students use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python® to create apps and develop websites, and learn how to make computers work together to put their design into practice. They apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them. There is a fee for this course.

COMPUTER SCIENCE ESSENTIALS HONORS 2 units
Prerequisites: Algebra 1 AND English 1 with grade C or higher in each AND currently enrolled in Geometry or higher level math. Recommended for grades 10-11.

Computer Science Essentials exposes students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence. Students use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python® to create apps and develop websites, and learn how to make computers work together to put their design into practice. They apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them. There is a fee for this course.

COMPUTER SCIENCE PRINCIPLES ADVANCED PLACEMENT 2 units
Prerequisites: Computer Science Essentials with grade C or higher. Recommended for grades 10-12.

Using Scratch and Processing as a primary tool and incorporating multiple platforms and languages for computation, this course aims to develop computational thinking, generate excitement about career paths that utilize computing, and introduce professional tools that foster creativity and collaboration. Computer Science Principles helps students develop programming expertise and explore the workings of the Internet. Projects and problems include app development, visualization of data, cybersecurity, and simulation. This course is designed to accelerate, extend, and deepen the learning opportunities for students exhibiting superior ability. The curriculum places emphasis on critical and analytical thinking, rational decision making, and inductive and deductive reasoning. Students will sit for the AP Computer Science exam. This course meets the computer science requirement for graduation. There is a fee for this course.

DIGITAL ELECTRONICS (PLTW) 1 unit
Prerequisites: Introduction to Engineering Design Honors AND Principles of Engineering Honors AND Geometry with grade C or higher in each AND currently enrolled in Algebra 2 OR teacher recommendation. Recommended for grades 10-11.

Digital Electronics is a course of study in applied digital logic. Students will be introduced to digital circuits found in video games, watches, calculators, digital cameras, and thousands of other devices. Students will study the application of digital logic and how digital devices are used to control automated equipment. The use of digital circuitry is present in virtually all aspects of our lives, and its use is increasing rapidly. This course is similar to a first semester college course and is an important course of study for a student exploring a career in engineering or engineering technology. There is a fee for this course.

DIGITAL ELECTRONICS HONORS (PLTW) 1 unit
Prerequisites: Introduction to Engineering Design Honors AND Principles of Engineering Honors AND Geometry with grade C or higher in each AND currently enrolled in Algebra 2 OR teacher recommendation. Recommended for grades 10-11.

This course is designed for students who have been highly successful in Introduction to Engineering Design Honors and Principles of Engineering Honors and are planning to major in some field of engineering. It includes engineering topics typically taught in Digital Electronics but at an accelerated pace and in greater depth. Additional activities and projects will be required. Students will also be required to take the college component of the end of course examination. There is a fee for this course.

ENGINEERING DESIGN AND DEVELOPMENT (PLTW) 1 unit
Prerequisites: Civil Engineering and Architecture AND Digital Electronics with grade C or higher in each. Recommended for grades 11-12.

This is the capstone course, and each student who completes four courses in the Project Lead the Way program will receive recognition for completing the program. In the Engineering Design and Development course, students will work in teams to design and construct the solution to an engineering problem (it can be original, taken from a database of problems, or a national challenge), applying the principles developed in the preceding courses. Students will maintain a journal as part of a portfolio of their work. Each team will be responsible for delivering progress reports and making final presentations of their project to an outside review panel. The completed portfolio will be invaluable as students apply to college. There is a fee for this course.
ENGINEERING DESIGN AND DEVELOPMENT HONORS (PLTW) 1 unit
Prerequisites: Algebra 2 AND 3 Engineering courses with grade B or higher in each AND currently enrolled in a College Prep math course OR teacher recommendation. Recommended for grades 11-12.
This course is designed for students who have been highly successful in their engineering courses and are planning to major in some field of engineering. The course includes topics typically taught in Engineering Design and Development but at an accelerated pace and in greater depth. Additional activities and projects will be required. Students will also be required to take the college component of the end of course examination. There is a fee for this course.

FUNDAMENTALS OF AEROSPACE TECHNOLOGY 1 unit
Prerequisites: Algebra 1 AND English 1 with grade C or higher in each. Recommended for grades 9-12.
This project-based learning course engages students who are curious about aviation and aerospace careers. This course will introduce students to an engineering design process, tools to collect and analyze data, the science of aviation, materials and structures, and safety. Students will participate in real-world experiences such as designing, building and testing a pilot seat, kite, straw rocket and launcher, motor-powered rocket, and a model glider. There is a fee for this course.

FUNDAMENTALS OF AEROSPACE TECHNOLOGY HONORS 1 unit
Prerequisites: Algebra 1 AND English 1 with grade C or higher in each. Recommended for grades 9-12.
This project-based learning course engages students who are curious about aviation and aerospace careers. This course will introduce students to an engineering design process, tools to collect and analyze data, the science of aviation, materials and structures, and safety. Students will participate in real-world experiences such as designing, building and testing a pilot seat, kite, straw rocket and launcher, motor-powered rocket, and a model glider. There is a fee for this course.

INTRODUCTION TO ENGINEERING DESIGN (PLTW) 1 unit
Prerequisites: Gateway to Technology OR Grade 8 Robotics AND Grade 8 math with grade A OR Algebra 1 CP with grade B or higher OR Algebra 1 Honors AND Grade 8 science with grade A OR GT 8th grade Science with grade B or higher OR Fast Track Physical Science Honors with grade B or higher. Recommended for grades 9-10.
Introduction to Engineering Design is a core course in the academy of engineering and an introductory course which develops student problem solving skills, with emphasis placed on the design process and the development of three-dimensional solid models. Students will learn a problem solving design process and how it is used in industry to manufacture a product. They will work from sketching simple geometric shapes to applying a solid modeling computer software package. The Computer-Aided-Design System (CAD) will also be used to analyze and evaluate the product design. The techniques learned and equipment used is state of the art and are currently being used by engineers throughout the United States. This course meets the computer science requirement for graduation. There is a fee for this course.

INTRODUCTION TO ENGINEERING DESIGN HONORS (PLTW) 1 unit
Prerequisites: Gateway to Technology OR Grade 8 Robotics AND Algebra 1 CP with grade B or higher OR Algebra 1 Honors AND English 1 with grade B or higher AND either GT 8th grade Science or Fast Track Physical Science Honors with grade B or higher. Recommended for grades 9-10.
This course is designed for students who are planning to major in some field of engineering. It includes engineering topics typically taught in Introduction to Engineering Design but at an accelerated pace and in greater depth. Additional activities and projects will be required. Students will also be required to take the college component of the end of course examination. This course meets the computer science requirement for graduation. There is a fee for this course.

PRINCIPLES OF ENGINEERING (PLTW) 1 unit
Prerequisites: Introduction to Engineering Design AND Algebra 1 AND English 1 with grade C or higher in each AND currently enrolled in Geometry or higher level math. Recommended for grades 10-11.
Principles of Engineering is a core course in the academy of engineering and a broad based survey course designed to help students understand the field of engineering and engineering technology and its career possibilities. Students will develop engineering problem solving skills that are involved in post-secondary education programs and engineering careers. They will explore various engineering systems and manufacturing processes. They will also learn how engineers address concerns about the social and political consequences of technological change. This course meets the computer science requirement for graduation. There is a fee for this course.

PRINCIPLES OF ENGINEERING HONORS (PLTW) 1 unit
Prerequisites: Introduction to Engineering Design Honors AND Algebra 1 AND English 1 with grade B or higher in each AND currently enrolled in Geometry OR higher level math OR teacher recommendation. Recommended for grades 10-11.
This course is designed for students who have been highly successful in their Engineering courses and are planning to major in some field of engineering. The course includes topics typically taught in Principles of Engineering but at an accelerated pace and in greater depth. Additional activities and projects will be required. Students will also be required to take the college component of the end of course examination. This course meets the computer science requirement for graduation. There is a fee for this course.
AUTOMOTIVE TECHNOLOGY 1 2 units
Prerequisites: Algebra 1 AND English 1 with grade C or higher in each. Recommended for grades 10-11.
The NATEF automobile accreditation model will be used. This course includes the following areas of instruction: Safety (including personal, shop and environmental), Hand and Power Tools, Shop Equipment, use of Service Information Systems, Precision Measuring Tools, Electrical/Electronic Systems and Basic Vehicle Service. There is a fee for this course.

AUTOMOTIVE TECHNOLOGY 2 2 units
Prerequisites: Automotive Technology 1 with grade C or higher AND teacher recommendation.
The NATEF MLR automobile accreditation model is used. This course includes the following areas of instruction: Brake Systems, Steering/Suspension Systems and Manual Drivetrain/ Axles. There is a fee for this course.

AUTOMOTIVE TECHNOLOGY 3 1 unit
Prerequisites: Automotive Technology 2 with grade C or higher.
The NATEF MLR automobile accreditation model is used. This course includes the following areas of instruction: Electrical/Electronic Systems review, Engine Fundamentals/Repair, Engine Performance, Automatic Transmissions/Transaxles and Heating/ Air-conditioning Systems. There is a fee for this course.

AUTOMOTIVE TECHNOLOGY 4: DIESEL ENGINE 1 unit
Prerequisites: Automotive Technology 3 with grade C or higher.
The NATEF MLR automotive accreditation model is used. This course provides a coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Transportation, Distribution and Logistics career cluster. Automotive Technology 4 provides exposure to advance technical skill proficiencies and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills and occupation-specific skills, and knowledge of all aspects of the Transportation, Distribution and Logistics career cluster. Areas covered include Brakes Systems, Steering/Suspension Systems and Manual Drive train/axles as well as Electrical/Electronic Systems review, engine fundamentals and repairs, engine performance, automatic transmissions/transaxles and heating and air conditioning systems. There is a fee for this course.

INTRODUCTION TO LOGISTICS 2 units
Prerequisites: Algebra 1 AND English 1 with grade C or higher in each. Recommended for grades 10-11.
This course engages students in solving contextual problems related to the concepts of supply chains, warehouse location, contingency planning, insourcing and outsourcing, and expanding existing supply chains. These concepts form the basis of global logistics and supply chain management and help students understand how professionals examine options to maximize the use of resources across distribution networks. Students will tour warehouse distribution centers, inland ports, trucking companies, and other companies with large supply chain solutions. There is a fee for this course.
2020-2021 FEES AND CLUB/ORGANIZATION DUES
All fees are paid directly to AIT.

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*Materials and fees for Cosmetology 1 and 2 total $450. Materials and fees for Cosmetology 3 and 4 total $400. Suggested payment plans are below. These dates and payments are during tax season and at the end of each month to help home support. Potential cosmetology students should refer to the cosmetology website for more information.

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<th>Date</th>
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<th>Cosmetology 3 and 4</th>
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<tbody>
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<tr>
<td>March 29th</td>
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<tr>
<td>April 26th</td>
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In partnership with Anderson University and Tri-County Technical College, Anderson School District Five will allow students to earn dual credit for certain college courses. Dual credit courses are college courses taken in high school for which the student receives both high school and college credit. Students must meet all college enrollment requirements at the participating colleges to be able to participate in the dual credit courses. Tuition costs vary and are determined by the college or university.

Dual enrollment courses are college courses taken for college credit while the student is still in high school. No high school credit is earned for dual enrollment courses.

The following courses will be offered as college courses. Students are responsible for receiving approval from the college they plan to attend to transfer these credits.

### Anderson University Dual Credit Courses

**BIO 110 – PRINCIPLES OF BIOLOGY 1**  
**1 unit**  
*Prerequisites: Must meet prerequisites for MAT 108.*  
Designed for biology and pre-professional majors; introduction to modern biology integrating lecture and laboratory and incorporating experimental and quantitative approaches. Topics covered include macromolecules, cell structure and function; cell interactions and metabolism; classical and modern genetics; and biotechnology. Students may earn 4 credits toward university transfer. (Fall)

**BIO 111 – PRINCIPLES OF BIOLOGY 2**  
**1 unit**  
*Prerequisites: Biology 110 with grade C or higher.*  
Continuation of Principles sequence. Emphasis on protozoa and animals as functional units. Topics include diversity, phylogeny, adaptation, morphology, physiology, ecology and behavior. Students may earn 4 credits toward university transfer. (Spring)

**CHE 111 – GENERAL CHEMISTRY 1**  
**1 unit**  
*Prerequisites: Score of 530+ on Math SAT OR 19+ on Math ACT, and completion of high school Algebra II with grade C or higher. Corequisite: CHE 113 (Lab).*  
Fundamental concepts of modern chemistry; topics include properties of the gas, liquid and solid states; atomic structure; chemical bonding; the periodic table; properties of elements and compounds; chemical formulas; nomenclature and equations; thermochemistry and solutions. Laboratory introduces quantitative analysis. Students registering for CHE 111 must attend Recitation. Students may earn 5 credits toward university transfer. (Fall)

**ENG 102 – ENGLISH COMPOSITION AND COMMUNICATIONS 2**  
**1 unit**  
*Prerequisites: English 101 or equivalent with grade C or higher.*  
Continuation of elements of argument-based writing and oral communication taught in English 101, with an emphasis on composing longer essays, engaging in collaborative work, and creating multimodal rhetoric. Students may earn 3 credits towards university transfer.

**FRE 111 – ELEMENTARY FRENCH LANGUAGE AND CULTURE 1**  
**1 unit**  
*Prerequisites: None.*  
Introduction to pronunciation and structure patterns of simple French sentences, necessary to develop listening, speaking, reading, and writing skills in FRE. An appreciation of French speaking culture underlies the orientation of the course. Students with two or more high school language credits may take the Foreign Language Placement Test during orientation with the option of being placed at a higher level. Students with prior study in educational institutions in which French is the primary language are not allowed to receive credit for the elementary level of the native language. Students may earn 3 credits toward university transfer.

**FRE 112 – ELEMENTARY FRENCH LANGUAGE AND CULTURE 2**  
**1 unit**  
*Prerequisites: FRE 111 or Placement Test.*  
Continuation of FRE 111; study of the basic sounds and structures of the French language. An appreciation of French speaking culture underlies the orientation of the course. Students may earn 3 credits toward university transfer.

**ENG 101 – ENGLISH COMPOSITION AND COMMUNICATIONS 1**  
**1 unit**  
*Prerequisites: An ACT score of 19 or above on the English, reading or writing sections, OR a SAT score of 500 or above on the Evidence Based Reading and Writing section, OR ACCUPLACER scores of RPL 25 and EPL 25.*  
Enter into academic discourse through topics of cultural and civic importance and introduction to the fundamentals of college composition, including the writing process, argument, critical reading and thinking skills, research methods, conventions of academic writing, use of technology in the writing process, and oral presentation skills. Students may earn 3 credits towards university transfer.

**GEO 102 – WORLD GEOGRAPHY**  
**1 unit**  
*Prerequisites: Must meet prerequisites for ENG 101.*  
This course is the study of physical and cultural factors influencing human activity. Students may earn 3 credits toward university transfer.
HIS 181 – FOUNDATIONS OF THE MODERN WORLD 1 unit
Prerequisites: Must meet prerequisites for ENG 101.
Beginning with the rise of civilization and concluding at the eve of the Modern Period (AD 1500) this course provides for the development of critical inquiry by emphasizing the analysis of primary sources. It examines major cultural, social, economic, and political trends of major world civilizations as a means of examining the society in which we live, and our identities and responsibilities as informed Christian world citizens. Students may earn 3 credits toward university transfer.

HIS 182 – THE MODERN WORLD 1 unit
Prerequisites: Must meet prerequisites for ENG 101.
Beginning at the eve of the Modern Period (circa 1500 AD) and concluding in the recent past, this course provides for the development of critical inquiry by emphasizing the analysis of primary sources. It examines major cultural, social, economic, and political trends of major world civilizations as a means of examining the society in which we live, and our identities and responsibilities as informed Christian world citizens. Students may earn 3 credits toward university transfer.

MAT 108 – FINITE PROBABILITY AND STATISTICS 1 unit
Prerequisites: Score of 490+ on Math SAT, or 16+ on Math ACT, and completion of high school Algebra II; OR ACCUPLACER scores of RPL 25 and MPL 30.
Introduction to probability and statistics; topics include descriptive statistics; probability; discrete and continuous random variables; the Binomial, Normal, and Student-T probability distributions; and estimation and hypothesis testing; linear correlation and regression. Students may earn 3 credits toward university transfer.

MAT 130 – ELEMENTARY CALCULUS 1 unit
Prerequisites: Score of 530+ on the Math SAT and completion of Algebra 2 with grade C or higher, OR ACCUPLACER scores of RPL 25 and MPL 40.
This course includes the following topics: differentiation and integration of polynomial, rational, logarithmic, and exponential functions and interpretation and application of these processes. Students may earn 3 credits towards university transfer. (Fall)

MAT 140 – ANALYTICAL GEOMETRY AND CALCULUS 1 1 unit
Prerequisites: Score of 600+ on the Math SAT OR 24 on the Math ACT OR MAT 130 OR ACCUPLACER score of MPL 45.
Introduction to differential and integral calculus; topics include limits, differentiation and applications, integration and applications, and the calculus of the trigonometric functions. Students may earn 4 credits toward university transfer.

PS 101 (POLITICAL SCIENCE) – AMERICAN NATIONAL GOVERNMENT 1 unit
Prerequisites: Must meet prerequisites for ENG 101.
Study of the constitutional basis of the federal government, including its organization, functions, and services. Students may earn 3 credits toward university transfer.

PSY 101 – INTRODUCTION TO PSYCHOLOGY 1 unit
Prerequisites: Must meet prerequisites for ENG 101.
Introduction to Psychology is a survey course that provides an overview of the methods, terms and theories and research findings in the field of psychology. By understanding the principles of psychology, students learn and understand more about themselves and others. Students may earn 3 credits toward university transfer.

SOC 101 – INTRODUCTION TO SOCIOLOGY 1 unit
Prerequisites: Must meet prerequisites for ENG 101.
This course is an introduction to major subjects in sociology. Main topics include historical development of the discipline, contemporary perspectives, and issues on social stratification, gender, ethnicity, socialization process, formal organizations, and selected social institutions. Students may earn 3 credits toward university transfer.

SPA 111 – ELEMENTARY SPANISH LANGUAGE AND CULTURE 1 unit
Prerequisites: None.
An introduction to the sound system and grammatical structure necessary to develop listening, speaking, reading, and writing skills in Spanish. An appreciation of Spanish speaking culture underlies the orientation of the course. A student with two or more high school language credits may take the Spanish Placement Test during orientation with the option of being placed at a higher level. Students with prior study in educational institutions in which Spanish is the primary language are not allowed to receive credit for the elementary level of the native language. Students may earn 3 credits toward university transfer.

SPA 112 – ELEMENTARY SPANISH LANGUAGE AND CULTURE 2 1 unit
Prerequisites: SPA 111 or Placement Test.
Continued study of additional verb tenses and grammatical structures and reading assignments of higher complexity. An appreciation of Spanish-speaking culture underlies the orientation of the course. Students may earn 3 credits toward university transfer.
ACC 101 – ACCOUNTING PRINCIPLES  1 unit
Prerequisites: None.
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. Accounting systems for various assets, liabilities, and equities are studied. Students may earn 3 credits towards university transfer.

ART 101 – ART HISTORY AND APPRECIATION  1 unit
Prerequisites: None.
This is an introductory course in the history and appreciation of art, including the elements and principles of the visual arts. Students may earn 3 credits towards university transfer.

BIO 101 – BIOLOGICAL SCIENCE I  1 unit
Prerequisites: Satisfactory placement test scores for ENG 101 or completion of ENG 101, ENG 103, or ENG 100 and RDG 100. Satisfactory placement test scores for MAT 101 or completion of MAT 101 or MAT 032. Completion of BIO 105 and CHM 105 replaces MAT and ENG prerequisites. All prerequisite courses require a grade C or higher. Credit may not be earned for both BIO 101 and BIO 105 or BIO 113.
This course is a study of the scientific method, basic biochemistry, cell structure and function, cell physiology, cell reproduction and development, Mendelian genetics, population genetics, natural selection, evolution, and ecology. Laboratory requirement supplements lectures. Students may earn 4 credits towards university transfer.

BIO 102 – BIOLOGICAL SCIENCE II  1 unit
Prerequisites: Completion of BIO 101 or BIO 113 with a grade C or higher. Credit may not be earned for both BIO 102 and BIO 114.
This course is a study of the classification of organisms and structural and functional consideration of all Kingdoms (particularly major phyla as well as viruses). Vertebrate animals and vascular plants are emphasized. Laboratory requirement supplements lectures. Students may earn 4 credits towards university transfer.

CHM 110 – COLLEGE CHEMISTRY I  1 unit
Prerequisites: Math placement score satisfactory for MAT 109 or MAT 110 or completion of MAT 102, MAT 109, MAT 110. Reading placement score satisfactory for ENG 101, ENG 103, or ENG 155. A grade C or higher must be earned in all prerequisite courses. Note: High school college prep chemistry is strongly recommended. Credit may not be earned for both CHM 110 and CHM 106.
This is the first 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. Heat processes and molecular structure will also be covered. Laboratory requirement supplements lectures. Students may earn 4 credits towards university transfer.

CPT 167 – INTRODUCTION TO PROGRAMMING LOGIC  1 unit
Prerequisites: None.
This course introduces foundation concepts in structured programming. Problem solving and algorithm development through pseudo code and flowcharting is emphasized. Solutions are developed using the basic control structures of sequential, decision, and iteration. Students may earn 3 credits towards university transfer.

CPT 170 – MICROCOMPUTER APPLICATIONS  1 unit
Prerequisites: ACCUPLACER score of RPL 25 is recommended.
This course introduces applications software, including word processing, databases, spreadsheets, graphs, and their integration. Students may earn 3 credits towards university transfer.

ECO 210 – MACROECONOMICS  1 unit
Prerequisites: ACCUPLACER scores of RPL 25 and EPL 25 are required.
This course includes the study of fundamental principles and policies of a modern economy to include markets and prices, national income accounting, cycles, employment theory and fiscal policy, banking and monetary controls, and the government’s role in economic decisions and growth. Credit cannot be awarded for both ECO 210 and ECO 101. Students may earn 3 credits towards university transfer.
ECO 211 – MICROECONOMICS  1 unit
Prerequisites: Satisfactory reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, ENG 103, or ENG 155 with a grade C or higher. Satisfactory math placement score for MAT 103 or MAT 120 or completion of MAT 102 with grade C or higher.
This course includes the study of the behavior of households and firms, including supply and demand, elasticity, price/output in different market structures, pricing of resources, regulations, and comparative advantage and trade. Credit cannot be awarded for both ECO 211 and ECO 101. Students may earn 3 credits towards university transfer.

ENG 101 – ENGLISH COMPOSITION I  1 unit
Prerequisites: ACCUPLACER scores of RPL 25 and EPL 25 are required.
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. Students may earn 3 credits towards university transfer.

ENG 102 – ENGLISH COMPOSITION II   1 unit
Prerequisites: ENG 101 with a grade C or higher.
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. Students may earn 3 credits towards university transfer.

GEO 102 – WORLD GEOGRAPHY   1 unit
Prerequisites: Satisfactory reading and writing placement scores for ENG 100, ENG 101, ENG 103 or ENG 155 with a grade C or higher.
This course includes a geographic analysis of the regions of the world, i.e., North and South America, Europe, Australia, Asia, and Africa. Diversity of each region is emphasized by examining its physical environment, natural resources, social, cultural, economic, and political systems. Students may earn 3 credits towards university transfer.

HIS 101 – WESTERN CIVILIZATION TO 1689   1 unit
Prerequisites: An English placement score satisfactory for ENG 101 is strongly recommended.
This 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. Students may earn 3 credits towards university transfer.

HIS 102 – WESTERN CIVILIZATION POST 1689  1 unit
Prerequisites: An English placement score satisfactory for ENG 101 is strongly recommended.
This 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. Students may earn 3 credits towards university transfer.

MAT 120 – PROBABILITY AND STATISTICS  1 unit
Prerequisites: ACCUPLACER scores of RPL 25 and MPL 30 are required.
This 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. Students may earn 3 credits towards university transfer.

MAT 130 – ELEMENTARY CALCULUS  1 unit
Prerequisites: ACCUPLACER scores of RPL 25 and MPL 40 are required.
This course includes the following topics: differentiation and integration of polynomial, rational, logarithmic, and exponential functions and interpretation and application of these processes. Students may earn 3 credits towards university transfer.

MAT 140 – ANALYTICAL GEOMETRY AND CALCULUS I  1 unit
Prerequisites: ACCUPLACER score of MPL 45 is required.
This course includes the following topics: derivatives and integrals of polynomial, rational, logarithmic, exponential, trigonometric, and inverse trigonometric functions; curve sketching; maxima and minima of functions; related rates; work; and analytic geometry. Students may earn 4 credits towards university transfer.

MAT 141 – ANALYTICAL GEOMETRY AND CALCULUS II  1 unit
Prerequisites: MAT 140 with a grade C or higher.
This course includes the following topics: continuation of calculus of one variable, including analytical geometry; techniques of integration; volumes by integration, and other applications; infinite series, including Taylor series; improper integrals. Students may earn 4 credits towards university transfer.
MUS 105 – MUSIC APPRECIATION 1 unit  
*Prerequisites: None*

This course is an introduction to the study of music with focus on the elements of music and their relationships, the musical characteristics or representative works and composers, common musical forms and genres of various western and non-western historical style periods, and appropriate listening experiences. Students may earn 3 credits towards university transfer.

PSC 201 – AMERICAN GOVERNMENT 1 unit  
*Prerequisites: ACCUPLACER scores of RPL 25 and EPL 25 are required.*

This course is a study of national governmental institutions with emphasis on the constitution, the functions of executive, legislative and judicial branches, civil liberties, and the role of the electorate. Students may earn 3 credits towards university transfer.

PSY 201 – GENERAL PSYCHOLOGY 1 unit  
*Prerequisites: ACCUPLACER scores of RPL 25 and EPL 25 are required.*

This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology. Students may earn 3 credits towards university transfer.

SOC 101 – INTRODUCTION TO SOCIOLOGY 1 unit  
*Prerequisites: ACCUPLACER scores of RPL 25 and EPL 25 are required.*

This 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. Students may earn 3 credits towards university transfer.

SPA 101 – ELEMENTARY SPANISH I 1 unit  
*Prerequisites: ENG 101 strongly recommended.*

This course is a study of the four basic language skills: listening, speaking, reading, and writing, including an introduction to the Hispanic culture. Students may earn 4 credits towards university transfer.

SPA 102 – ELEMENTARY SPANISH II 1 unit  
*Prerequisites: SPA 101, Foreign Language Placement test or Exemption test scores.*

This course continues development of the basic language skills and the study of the Hispanic culture. Students may earn 4 credits towards university transfer.

SPC 205 – PUBLIC SPEAKING 1 unit  
*Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 or in ENG 156.*

This course is an introduction to principles of public speaking with application of speaking skills. Students may earn 3 credits towards university transfer.
Anderson School District Five and Tri-County Technical College are partnering to offer dual enrollment opportunities for high school students who desire training in one of the specialized technical career programs listed below. Career Pathways for Success (CPS) provides students with the opportunity to enter the workforce in fewer than two years. This seamless connection between secondary and post-secondary curricula in a career area allows students to earn stackable credentials such as certificates, diplomas, and associate degrees, with the option in many cases to continue on to a four-year college or university to earn a bachelor’s degree.

Students and parents should review the Career Pathways for Success options and talk with their school counselor or career development facilitator to determine if this option meets their needs. Tri-County Technical College will require students to meet prerequisites such as placement scores on ACCUPLACER before beginning the program of study. Additionally, Tri-County Tech will hold an orientation meeting in the spring, designed specifically for participating dual enrollment students and their parents.

**Business and Public Services**

- Accounting
- Administrative Office Technology
- Administrative Office Technology – Medical Emphasis
- Business Administration
- Computer Technology – Cybersecurity and Forensics Emphasis
- Computer Technology – Network Systems Management Emphasis
- Computer Technology – Software and Web Development Emphasis
- Criminal Justice Technology
- Early Care and Education
- Media Arts Production

**Health Education**

- Expanded Duty Dental Assisting
- Emergency Medical Technology
- Medical Assisting
- Medical Laboratory Technology
- Associate Degree Nursing
- Practical Nursing
- Pre-Pharmacy
- Surgical Technology
- Veterinary Technology

The following pathways are fully funded by the state for students who are in high school and are committed to continuing toward an associate degree in the field after high school graduation.

**Engineering and Industrial Technology**

- CNC Programming and Operations
- General Engineering Technology
- Heating, Ventilation & Air Conditioning (HVAC)
- Industrial Electronics Technology & Mechatronics Technology
- Welding Technology
The following TCTC pathways courses are considered courses for dual credit; they will be transcribed to both the college transcript and the high school transcript at the weighting specified. See course descriptions and more information in the pathways documents on pages 67-114 of this catalog.

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<td>MFG 102 Applied Learning in Manufacturing <em>(This course is a half unit.)</em></td>
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12th Grade:

**FALL**
- ENG 156 or ENG 191
- MAT 156 or MAT 120 or MAT 100

**SPRING**
- CPT 170
- ACC 111
- ACC 150
- General Elective

**FALL**
- ACC 102
- ACC 201
- Business

**SPRING**
- ACC 220
- ACC 275
- Program Elective
- Program Elective

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**ACCOUNTING, ASSOCIATE IN APPLIED SCIENCE DEGREE**

**Graduate from High School with 12 Hours of College Credit**

- Build a competitive and marketable resume for work in a variety of settings following high school.
- Earn 12 hours of college credit that you can use toward an Associate in Applied Science Degree in Accounting.
- Successful students are effective communicators, detail-oriented, like solving problems, and conscientious.
- Take your dual enrollment classes at a TCTC Campus alongside college students or at a college site in your school district.
- Qualify for positions at the junior accountancy level in a field expected to increase by 3% over the next 4 years.

**Tri-County Technical College Contact:**
Amanda Blanton • ablanton@ctc.edu

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*If you plan to continue education beyond Associate Degree.*
COURSE DESCRIPTIONS: ACCOUNTING

The Accounting program prepares students to be important members of an organization's management team. Accountants provide accurate, up-to-date financial information required for making major business decisions. Graduates are well prepared for employment at the junior accountancy level in business, public, or nonprofit accounting.

ACC 101 - Accounting Principles I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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. Accounting systems for various assets, liabilities, and equities are studied.

ACC 102 - Accounting Principles II
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes managerial accounting theory and practice in basic accounting and procedures for cost accounting, budgeting, cost-volume analysis, and financial statement analysis.
Prerequisites: ACC 101.

ACC 111 - Accounting Concepts
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the principles of the basic accounting functions – collecting, recording, analyzing, and reporting information.

ACC 112 - Organizational Accounting
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of financial accounting with specific emphasis on partnerships and the corporate form of organization.
Prerequisites: ACC 101 or ACC 111.

ACC 120 - Federal Income Tax
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the income tax structure from the standpoint of the individual, partnership, and corporation.
Prerequisites: ACC 101.

ACC 150 - Payroll Accounting
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the major tasks of payroll accounting, employment practices, federal, state, and local governmental laws and regulations, internal controls, and various forms and records.

ACC 201 - Intermediate Accounting I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course explores fundamental processes of accounting theory, including the preparation of financial statements. An in-depth review of financial accounting principles is emphasized.
Prerequisites: ACC 102.

ACC 202 - Intermediate Accounting II
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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.
Prerequisites: ACC 201 and ACC 246.

ACC 230 - Cost Accounting I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the accounting principles involved in job order cost systems. The elements of cost are studied and the process cost system is introduced.
Prerequisites: ACC 102.

ACC 245 - Accounting Applications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces microcomputer accounting using data base software and/or electronic spreadsheets.
Prerequisites: ACC 101 and CPT 170.

ACC 246 - Integrated Accounting Software
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the use of pre-designed integrated accounting software for accounting problems.
Prerequisites: ACC 101 or ACC 111 and CPT 170.

ACC 275 - Selected Topics in Accounting
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course provides an advanced, in-depth review of selected topics in accounting using case studies and individual and group problem solving.
Prerequisites: ACC 120, ACC 201, ACC 230, and ACC 246.

BUS 101 - Introduction to Business
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the nature of business activity in relation to the economic society, including how a business is owned, organized, managed, and controlled. Topics include finance, marketing, production, quality assurance, and international business issues.

BUS 121 - Business Law I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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.

CPT 170 - Microcomputer Applications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces microcomputer applications software, including word processing, databases, spreadsheets, graphs, and their integration.
Note: Reading placement scores satisfactory for ENG 100 or ENG 155 is strongly recommended.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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.
Prerequisites: Satisfactory placement scores or grade of A.

ENG 105 - Communications I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the principles of expository writing and public speaking through practice and development of communication skills.
Prerequisites: Satisfactory writing placement score or grade of C or higher in ENG 032 and satisfactory reading placement score or a grade of C or higher in RDG 100.
Note: This course cannot be used for an AA or AS degree.

ENG 156 - Communications II
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a continuation of the development of communication skills through writing, speaking, and library research assignments.
Prerequisites: A grade of C or higher in ENG 155 or in ENG 101.
Note: This course cannot be used for an AA or AS degree.

MAT 109 - College Algebra with Modeling
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an approach to algebra that incorporates mathematical modeling of real data and business applications. Emphasis on linear, quadratic, piece-wise defined, rational, polynomial, exponential and logarithmic functions. Includes inequalities and matrices.
Prerequisites: Satisfactory math placement score or MAT 102 with a grade of C or higher and a Compass reading score of 83 or RDG 100 with a grade of C or higher or ENG 101 with a grade of C or higher.
Note: Credit cannot be earned for both MAT 109 and MAT 110.

MAT 120 - Probability and Statistics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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.
Prerequisites: Satisfactory math placement score; or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A.

MAT 155 - Contemporary Mathematics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes techniques and applications of the following topics: elementary number theory; algebra; geometry; measurement; graph sketching and interpretations, and descriptive statistics.
Prerequisites: Satisfactory math placement score or MAT 032 with a grade of C or higher.
Note: This course cannot be used for an AA or AS degree.

MGT 101 - Principles of Management
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of management theories, emphasizing the management functions of planning, decision making, organizing, leading, and controlling.

SPC 205 - Public Speaking
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills.
Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 in or ENG 155 or in ENG 156.
For Administrative Office Technology students:

TAP credit available for AOT 105, AOT 137, and others with successful completion of TAP exam.

*If you plan to continue education beyond Associate Degree.

**High School Graduation with 12 Hours or More College Credit**

- AOT 105
- AOT 133
- AOT 167
- BUS 101
- General Elective

**Graduate from High School with 12 Hours or More of College Credit**

- Build a competitive and marketable resume for administrative office work in a variety of settings.
- Earn 12 hours of college credit that you can use toward an Associate in Applied Science Degree in Administrative Office Technology or related credentials. Additional college credit may be earned through Technical Advanced Placement (TAP).
- Successful students are effective communicators, continuous learners, and comfortable with technology.
- Take your dual enrollment classes at a TCTC Campus alongside college students or at a college site in your district.
- For information on TAP credit, go to www.tctc.edu/TAP.

**Administrative Office Technology Associate in Applied Science Degree**

**Exit Now**

Median $33,606 Annually

**Tri-County Technical College Contact:**
Amanda Blanton • ablanton@tctc.edu

REVISED 10/2019
COURSE DESCRIPTIONS: ADMINISTRATIVE OFFICE TECHNOLOGY

The Administrative Office Technology program prepares students for employment in various office settings in business and industry through comprehensive training in the specialized skills and office procedures needed by the professional office employee in a modern, high-tech office environment.

AOT 105 - Keyboarding
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course focuses on the mastery of touch keyboarding and formatting principles using a computer.

AOT 110 - Document Formatting
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes speed, accuracy, and developing document-formatting skills using keyboarding competencies.
Prerequisites: AOT 105.

AOT 133 - Professional Development
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes development of personal and professional skills required of an office worker in areas such as projecting a professional image, job-seeking skills, office etiquette, ethics, and time and stress management.

AOT 134 - Office Communications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of grammar, punctuation, and written communication skills for the office environment.
Prerequisites: AOT 105.

AOT 137 - Office Accounting
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the fundamentals of basic accounting principles and focuses on basic financial records of a typical office.

AOT 141 - Office Procedures I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This is an introductory course to a variety of office procedures and tasks using business equipment, systems, and procedures.
Prerequisites: AOT 105.

AOT 167 - Information Processing Applications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes applications and features of information processing software.

AOT 251 - Administrative Systems and Procedures
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers processing information in the office. Emphasis is on increasing proficiency in performing a variety of office tasks (MS Word, Excel, Access).
Prerequisites: AOT 165, AOT 263, AOT 267.

AOT 260 - Office Word Processing Applications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes the concepts of word processing for information management in an office environment.
Prerequisites: AOT 105.

AOT 261 - Office Spreadsheet Application
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes the concepts of spreadsheets for information management in an office environment.
Prerequisites: AOT 105.

AOT 263 - Office Database Applications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes the concepts and structures of a database and the application of the concepts in an office environment (MS Access).
Prerequisites: AOT 105 or CPT 170.

AOT 265 - Office Desktop Publishing
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes the integration of text and graphics using computer software to design, edit, and produce a variety of documents.
Prerequisites: AOT 105.

BUS 101 - Introduction to Business
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the nature of business activity in relation to the economic society, including how a business is owned, organized, managed, and controlled. Topics include finance, marketing, production, quality assurance, and international business issues.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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.
Prerequisites: Satisfactory writing placement score or a grade of C or higher in ENG 100 or in ENG 155; AND satisfactory reading placement score or a grade of C or higher in RDG 100.

ENG 155 - Communications I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the principles of expository writing and public speaking through practice and development of communication skills.
Prerequisites: Satisfactory writing placement score or grade of C or higher in ENG 032; AND satisfactory reading placement score or a grade of C or higher in RDG 100.

ENG 156 - Communications II
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a continuation of the development of communication skills through writing, speaking, and library research assignments.
Prerequisites: A grade of C or higher in ENG 155 or in ENG 101.

MAT 120 - Probability and Statistics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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.
Prerequisites: Satisfactory math placement score; or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A.

MAT 155 - Contemporary Mathematics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes techniques and applications of the following topics: elementary number theory; algebra; geometry; measurement; graph sketching and interpretations, and descriptive statistics.
Prerequisites: Satisfactory math placement score or MAT 032 with a grade of C or higher.

MGT 110 - Office Management
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of various approaches to office organization and management, personnel selection and training, and ergonomics in the modern office.

SPC 205 - Public Speaking
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills.
Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 or in ENG 156.
For Administrative Office Technology Medical Emphasis students:

TAP credit available for AOT 105, AOT 133, and others with successful completion of TAP exam.

*These classes if you plan to continue education beyond Associate Degree.

Graduate from High School with 12 Hours or More of College Credit

- Build a competitive and marketable resume for administrative office work in a variety of medical settings.
- Earn 12 hours of college credit that you can use toward an Associate in Applied Science Degree in Administrative Office Technology - Medical Emphasis or related credentials. Additional college credit may be earned through Technical Advanced Placement (TAP).
- Successful students are effective communicators, continuous learners, and comfortable with technology.
- Take your dual enrollment classes at a TCCTC Campus alongside college students or at a college site in your district.
- For information on TAP credit, go to www.ttc.edu/TAP.

Tri-County Technical College Contact:
Amanda Blanton • ablanton@ttc.edu

Rev 10/2019
COURSE DESCRIPTIONS: ADMINISTRATIVE OFFICE TECHNOLOGY – MEDICAL EMPHASIS

The Administrative Office Technology program prepares students for employment in various office settings in business and industry through comprehensive training in the specialized skills and office procedures needed by the professional office employee in a modern, high-tech office environment.

AHS 102 - Medical Terminology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers medical terms, including roots, prefixes, and suffixes, with emphasis on spelling, definition, and pronunciation.

AOT 105 - Keyboarding
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course focuses on the mastery of touch keyboarding and formatting principles using a computer.

AOT 110 - Document Formatting
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes speed, accuracy, and developing document-formatting skills using keyboarding competencies.
Prerequisites: AOT 105.

AOT 122 - Medical Transcription I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course provides experience in transcribing medical documents from dictation.
Prerequisites: AOT 105.

AOT 133 - Professional Development
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes development of personal and professional skills required of an office worker in areas such as projecting a professional image, job-seeking skills, office etiquette, ethics, and time and stress management.

AOT 134 - Office Communications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of grammar, punctuation, and written communication skills for the office environment.
Prerequisites: AOT 105.

AOT 137 - Office Accounting
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the fundamentals of basic accounting principles and focuses on basic financial records of a typical office.

AOT 141 - Office Procedures I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This is an introductory course to a variety of office procedures and tasks using business equipment, systems, and procedures.
Prerequisites: AOT 105.

AOT 167 - Information Processing Applications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes applications and features of information processing software.

AOT 212 - Medical Document Production
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers the production of documents found in medical offices. The major focus is on productivity and excellence in medical document production.

AOT 252 - Medical Systems and Procedures
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes development of proficiency in integrating skills commonly performed in medical offices.

AOT 260 - Office Word Processing Applications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes the concepts of word processing for information management in an office environment.
Prerequisites: AOT 105.

AOT 261 - Office Spreadsheet Application
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes the concepts of spreadsheets for information management in an office environment.
Prerequisites: AOT 105.

AOT 263 - Office Database Applications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course emphasizes the concepts and structures of a database and the application of the concepts in an office environment (MS Access).
Prerequisites: AOT 105 or CPT 170.

BUS 101 - Introduction to Business
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the nature of business activity in relation to the economic society, including how a business is owned, organized, managed, and controlled. Topics include finance, marketing, production, quality assurance, and international business issues.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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.
Prerequisites: Satisfactory writing placement score or a grade of C or higher in ENG 100 or in ENG 155; AND satisfactory reading placement score or a grade of C or higher in RDG 100.

ENG 155 - Communications I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the principles of expository writing and public speaking through practice and development of communication skills.
Prerequisites: Satisfactory writing placement score or grade of C or higher in ENG 032; AND satisfactory reading placement score or a grade of C or higher in RDG 100.

ENG 156 - Communications II
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a continuation of the development of communication skills through writing, speaking, and library research assignments.
Prerequisites: A grade of C or higher in ENG 155 or in ENG 101.

MAT 120 - Probability and Statistics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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.
Prerequisites: Satisfactory math placement score; or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A.

MAT 155 - Contemporary Mathematics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes techniques and applications of the following topics: elementary number theory; algebra; geometry; measurement; graph sketching and interpretations, and descriptive statistics.
Prerequisites: Satisfactory math placement score or MAT 032 with a grade of C or higher.

MGT 110 - Office Management
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of various approaches to office organization and management, personnel selection and training, and ergonomics in the modern office.

PSY 120 - Organizational Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of basic psychological principles of supervision and organizational dynamics. Emphasis is placed on people skills and general human relation techniques in the workplace.
Note: This course will not satisfy any Associate of Arts or Associate of Science requirements.

PSY 201 - General Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology.
Prerequisites: Reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, or ENG 155 with a grade of C or higher.
Note: BIO 101 strongly recommended.

SPC 205 - Public Speaking
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills.
Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 or in ENG 156.
CPS CAREER PATHWAYS FOR SUCCESS

A DUAL ENROLLMENT CAREER PATHWAY FOR BUSINESS ADMINISTRATION

12th Grade:

FALL
- ENG 101
- MAT 101
- PSY 205
- PSY 120 or PSY 241

SPRING
- BUS 101
- BUS 121
- BUS 150
- CPT 170**
- MGT 101

FALL
- ACC 101
- ECO 101 or ECO 210

SPRING
- MGT 210
- MGT 260
- Program Elective 3 or Emphasis Course
- Program Elective 4 or Emphasis Course

EXIT NOW

MGT 100
- Program Elective 1 or Emphasis Course
- Program Elective 2

High School Graduation
WITH 12 HOURS COLLEGE CREDIT

If you plan to continue education beyond Associate Degree.

** TAP credit available for CPT 170 with successful completion of TAP exam.

BUSINESS ADMINISTRATION ASSOCIATE IN APPLIED SCIENCE DEGREE

Graduate from High School with 12 Hours of College Credit

- Build a competitive and marketable resume for work in a variety of settings following high school.

- Earn up to 15 hours of college credit (dual enrollment + TAP) that you can use toward an Associate in Applied Science Degree in Business Administration.

- Successful students are effective communicators, interested in solving problems, working as part of a team, and being leaders in a business environment.

- Students may also specialize in the following disciplines: Banking and Finance, Entrepreneurship, Management, Marketing, or Operations Management.

- Take your dual enrollment classes at a TCTC Campus alongside college students or at a college site in your district.

TRI-COUNTY TECHNICAL COLLEGE CONTACT:
Amanda Blanton • ablanton@tctc.edu
REVISED 10/2019

Median $48,523 Annually

TriCounty Technical College

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COURSE DESCRIPTIONS: BUSINESS ADMINISTRATION

The Business Administration program prepares students with the knowledge and skills necessary for entry-level managerial positions. This program develops management communication and problem-solving skills required for these positions.

ACC 101 - Accounting Principles I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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. Accounting systems for various assets, liabilities, and equities are studied.

BUS 101 - Introduction to Business
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the nature of business activity in relation to the economic society, including how a business is owned, organized, managed, and controlled. Topics include finance, marketing, production, quality assurance, and international business issues.

BUS 121 - Business Law I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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.

BUS 150 - The Enterprise Value Chain
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
Represents an enterprise-wide program aimed at defining and achieving customer satisfaction. This course is an introduction to the philosophies, organizational cultures, and practices that leading organizations implement to ensure and continuously improve upon quality and processes. Techniques such as Lean, Lean Six Sigma, and Six Sigma are explored. Upon completing this course, students should have an excellent understanding of tools and methods that focus all of an organization's resources on continuous and simultaneous improvement of quality and productivity to achieve highest performance and competitiveness.

BUS 175 - International Business
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This is an introductory course in international business and trade. The course will explore the reasons companies choose to enter the international market, various marketing approaches, government regulations and opportunities for the individual. Prerequisites: BUS 101.

BUS 275 - Business Internship
Class Hours: 1 Lab Hours: 6 Credit Hours: 3
This course includes practical experience in an approved business setting as well as class meetings. Class meeting emphasis is placed on topics which will enhance employability skills. Prerequisites: Requires Department Head or Program Coordinator Approval.

CPT 170 - Microcomputer Applications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces microcomputer applications software, including word processing, databases, spreadsheets, graphs, and their integration.

ECO 101 - Basic Economics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of comparative economic systems, forms of business organization, business operation, and wage and price determination. Note: Credit cannot be awarded for both ECO 101 and ECO 210 or ECO 211.

ECO 210 - Macroeconomics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the study of fundamental principles and policies of a modern economy to include markets and prices, national income accounting, cycles, employment theory and fiscal policy, banking and monetary controls, and the government's role in economic decisions and growth. Note: Credit cannot be awarded for both ECO 210 and ECO 101.
Prerequisites: Satisfactory reading and writing placement scores for ENG 101; or completion of ENG 100, ENG 101, ENG 103, or ENG 155 with a grade of C or higher; or satisfactory English placement scores for ENG 101 and completion of RDG 100 with a grade of C or higher. Satisfactory math placement scores for MAT 103 or MAT 120 or completion of MAT 102 with a grade of C or higher.

ECO 211 - Microeconomics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the study of the behavior of households and firms, including supply and demand, elasticity, price/output in different market structures, pricing of resources, regulations, and comparative advantage and trade. Note: Credit cannot be awarded for both ECO 211 and ECO 101.
Prerequisites: Satisfactory reading and writing placement scores for ENG 101; or completion of ENG 100, ENG 101, ENG 103, or ENG 155 with a grade of C or higher; or satisfactory English placement scores for ENG 101 and completion of RDG 100 with a grade of C or higher. Satisfactory math placement scores for MAT 103 or MAT 120 or completion of MAT 102 with a grade of C or higher.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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. Prerequisites: Satisfactory writing placement score or a grade of C or higher in ENG 100 or in ENG 155; AND satisfactory reading placement score or a grade of C or higher in RDG 100.

ENG 103 - English Composition II
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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. Prerequisites: Satisfactory math placement score; or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A.

MAT 120 - Probability and Statistics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills. Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 or in ENG 156.

MGT 101 - Principles of Management
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of management theories, emphasizing the management functions of planning, decision making, organizing, leading, and controlling.

MGT 240 - Management Decision Making
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of various structured approaches to managerial decision making. The situations are realistic and will aid in developing problem-solving skills. Prerequisites: ACC 101 or ACC 111, CPT 170, MGT 101, and MTK 101.

MGT 260 - Leadership Fundamentals
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course examines the significant research and theories that provide the conceptual framework for viewing and practicing leadership as a collective enterprise. Emerging leaders are empowered through the leadership experience involving new organizational paradigms.

MKT 101 - Marketing
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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.

MKT 130 - Customer Service Principles
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the importance of customer service satisfaction and the functions of various customer relations systems.

PSY 120 - Organizational Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of basic psychological principles of supervision and organizational dynamics. Emphasis is placed on people skills and general human relation techniques in the workplace. Note: This course will not satisfy any Associate of Arts or Associate of Science requirements.

PSY 201 - General Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology. Prerequisites: Reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, or ENG 155 with a grade of C or higher. Note: BIO 101 strongly recommended.

SPC 205 - Public Speaking
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills. Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 or in ENG 156.
CAREER PATHWAYS FOR SUCCESS

A DUAL ENROLLMENT CAREER PATHWAY FOR COMPUTER TECHNOLOGY, CYBERSECURITY AND FORENSICS EMPHASIS

12th Grade:

FALL
- IST 258
- IST 259
- IST 260
- IST 101
- IST 252
- IST 254
- IST 256
- IST 257
- IST 259
- IST 269
- IST 260

SUMMER
- IST 260
- IST 250
- IST 252
- IST 254
- IST 256
- IST 257
- IST 259
- IST 269
- IST 260

SPRING
- IST 260
- IST 250
- IST 252
- IST 254
- IST 256
- IST 257
- IST 259
- IST 269
- IST 260

FALL
- IST 260
- IST 250
- IST 252
- IST 254
- IST 256
- IST 257
- IST 259
- IST 269
- IST 260

High School Graduation
WITH 12 HOURS OR MORE COLLEGE CREDIT

- CPT 167
- IST 222**
- Social Science
- Humanities

*If you plan to continue education beyond Associate Degree.

**TAP credit available for CPT 170, CPT 270, IST 222 with successful completion of TAP exam. Additional TAP credit may be available. Talk with your high school instructor for more details.

COMPUTER TECHNOLOGY: FORENSICS AND CYBERSECURITY EMPHASIS ASSOCIATE IN APPLIED SCIENCE DEGREE

Graduate from High School with 12 or More Hours of College Credit

- Build a competitive and marketable resume for work in a variety of settings following high school.
- Earn 12 or more hours of college credit (dual enrollment + TAP) that you can use toward an Associate in Applied Science Degree in Computer Technology.
- Successful students are effective problem solvers, detail-oriented, and enjoy mathematics.
- Take your dual enrollment classes at a TCTC Campus alongside college students or at a college site in your district.
- Qualify for positions in a high-demand field expected to increase by 7.6% over the next 4 years.

TRI-COUNTY TECHNICAL COLLEGE CONTACT:
Amanda Blanton • ablanton@tctc.edu

TriCounty Technical College

Entry-Level
$10,960 Annually
Median
$69,470 Annually

REVISED 03/2018
COURSE DESCRIPTIONS: COMPUTER TECHNOLOGY – CYBERSECURITY AND FORENSICS EMPHASIS

This degree emphasis in Cybersecurity and Forensics prepares graduates for employment by providing skills in technical support, forensic investigation, computer and network security, and network administration. Students learn additional skills in multi areas of information technology including databases, operating systems, programming, and web development.

CPT 167 - Introduction to Programming Logic
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces foundation concepts in structured programming. Problem solving and algorithm development through pseudo code and flowcharting is emphasized. Solutions are developed using the basic control structures of sequential, decision, and iteration.

CPT 170 - Microcomputer Applications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces microcomputer applications software, including word processing, databases, spreadsheets, graphs, and their integration. Note: Reading placement scores satisfactory for ENG 100 or ENG 155 is strongly recommended.

CPT 176 - Microcomputer Operating Systems
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers operating systems concepts of microcomputers, including file maintenance, disk organization, batch files, and subdirectory concepts. Prerequisites: CPT 167.

CPT 234 - C Programming I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This introductory course in C Programming emphasizes the designing, coding, testing, and debugging of C programs involving input/output operations, data types, storage classes, decision structures, looping, functions, preprocessor directives, arrays, and simple pointers. Prerequisites: CPT 167.

CPT 242 - Database
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces database models and the fundamentals of database design. Topics include database structure, database processing, and application programs which access a database. Prerequisites: CPT 234.

CPT 264 - Systems and Procedures
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers the techniques of system analysis, design, development, and implementation. Prerequisites: CPT 242 and IST 150.

CPT 285 - PC Hardware Concepts
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course focuses on installing and upgrading microcomputer hardware and identifying malfunctions. Prerequisites: CPT 167.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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. Prerequisites: Satisfactory writing placement score or a grade of C or higher in ENG 100 or ENG 155 and satisfactory reading placement score or a grade of C or higher in RDG 100.

ENG 155 - Communications I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the principles of expository writing and public speaking through practice and development of communication skills. Prerequisites: Satisfactory writing placement score or grade of C or higher in ENG 032 and satisfactory reading placement score or a grade of C or higher in RDG 100. Note: This course cannot be used for an AA or AS degree.

ENG 156 - Communications II
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a continuation of the development of communication skills through writing, speaking, and library research assignments. Prerequisites: A grade of C or higher in ENG 155 or in ENG 101. Note: This course cannot be used for an AA or AS degree.

IST 150 - Project Management Essentials for IT Professionals
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is the study of integrated project management for computer technology professionals with emphasis on the methods and software used by IT professionals, including task lists, Gantt charts, discussion of critical path statistical resource management, scheduling, budgeting, and economic factors. Prerequisites: CPT 170.

IST 191 - LINUX System Administration
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course will provide students with the skills necessary to administer a LINUX system, including hardware/software configuration, user and group administration, LINUX network configuration, and file system management. Prerequisites: CPT 167.

IST 220 - Data Communications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the fundamentals of data communications. Basic signaling, networking, and various transmission media are covered. Prerequisites: CPT 167.

IST 222 - Introduction to Webpage Production
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is designed to develop skills in using common office and web development software to produce webpage content.

IST 257 - LAN Network Server Technologies
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of network operating system technologies including network operating system architecture, the installation, configuration, monitoring and troubleshooting of network resources, and network administration functions such as user/group maintenance, network security, print services, remote access, fault tolerance, backup and recovery. Prerequisites: IST 220.

IST 266 - Internet and Firewall Security
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to firewalls and other network security components that can work together to create an in-depth defensive perimeter around a Local Area Network (LAN). Prerequisites: IST 220.

IST 268 - Computer Forensics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course provides students with a foundational knowledge in computer forensics investigation. Students are introduced to the skills, tools, and methods used to gather, document, and handle electronic evidence. Prerequisites: IST 191.

IST 269 - Digital Forensics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course examines advanced technical aspects of digital computer evidence to include detection, collection, identification, and preservation. Emphasis is placed on specific tools and methods for extracting deleted or destroyed computer-related evidence. Prerequisites: IST 268.

IST 272 - Relational Database
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course provides a comprehensive foundation in both SQL and relational database design and implementation. Dynamic and embedded SQL programming techniques are emphasized. Prerequisites: CPT 242.

IST 290 - Special Topics in Information Sciences
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers special topics in information sciences technologies. As topics change, students may repeat this course for additional credit with permission of Department Head. Prerequisites: CPT 234.

IST 291 - Fundamentals of Network Security I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is the study of intro levels of security processes based on a security policy, emphasizing hands-on skills in the areas of secure perimeter, security connectivity, security management, identity services, and intrusion detection. The course prepares students to manage network security. Prerequisites: IST 220.

MAT 110 - College Algebra
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics: polynomial, rational, logarithmic, and exponential functions; inequalities; systems of equations and inequalities; matrices; determinants; and solutions of higher degree polynomials. Prerequisites: Satisfactory math placement score or MAT 022 with a grade of C or higher. Note: Credit cannot be earned for both MAT 109 and MAT 110.

MAT 155 - Contemporary Mathematics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes techniques and applications of the following topics: elementary number theory; algebra; geometry; measurement; graph sketching and interpretations, and descriptive statistics. Prerequisites: Satisfactory math placement score or MAT 032 with a grade of C or higher. Note: This course cannot be used for an AA or AS degree.

MAT 120 - Probability and Statistics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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. Prerequisites: Satisfactory math placement score or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A and a satisfactory reading placement score or RDG 100 with a grade of C or higher, or ENG 101 with a grade of C or higher.

SPC 205 - Public Speaking
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills. Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 or in ENG 156.
12th Grade:

**FALL**
- CGS 155 or ENG 101
- MAT 102
- CPT 170
- IST 150

**SPRING**
- CGS 156 or ENG 102
- MAT 207
- CPT 204
- IST 151

**SUMMER**
- IST 152
- IST 153
- IST 154

**FALL**
- CPT 202
- IST 250
- IST 251
- IST 252
- IST 253
- IST 254

**SPRING**
- CPT 201
- IST 254
- IST 252
- IST 251
- IST 250

**HIGH SCHOOL GRADUATION WITH 12 HOURS OR MORE COLLEGE CREDIT**
- CPT 167
- IST 222
- Social Science
- Humanities

**COMPUTER TECHNOLOGY: NETWORK SYSTEMS MANAGEMENT EMPHASIS ASSOCIATE IN APPLIED SCIENCE DEGREE**

**Graduate from High School with 12 or More Hours of College Credit**

- Build a competitive and marketable resume for work in a variety of settings following high school.
- Earn 12 or more hours of college credit (dual enrollment + TAP) that you can use toward an Associate in Applied Science Degree in Computer Technology.
- Successful students are effective problem solvers, detail-oriented, and enjoy mathematics.
- Take your dual enrollment classes at a TCTC Campus alongside college students or at a college site in your district.
- Qualify for positions in a high-demand field expected to increase by 7.6% over the next 4 years.

**TRI-COUNTY TECHNICAL COLLEGE CONTACT:**
Amanda Blanton • ablanton@ctc.edu

**Entry-Level $41,190 Annually Median $67,420 Annually**
COURSE DESCRIPTIONS: COMPUTER TECHNOLOGY – NETWORK SYSTEMS MANAGEMENT EMPHASIS

This degree emphasis in Network Systems Management provides graduates with skills in technical support, router configuration and security, network systems administration, and network security. Students learn additional skills in multiple areas of information technology, including databases, operating systems, programming, and web development.

CPT 167 - Introduction to Programming Logic
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces foundation concepts in structured programming. Problem solving and algorithm development through pseudo code and flowcharting is emphasized. Solutions are developed using the basic control structures of sequential, decision, and iteration.

CPT 170 - Microcomputer Applications Class
Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces microcomputer applications software, including word processing, databases, spreadsheets, graphics, and their integration. Note: Reading placement scores satisfactory for ENG 100 or ENG 155 is strongly recommended.

CPT 176 - Microcomputer Operating Systems Class
Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers operating systems concepts of microcomputers, including file maintenance, disk organization, batch files, and subdirectory concepts.
Prerequisites: CPT 167.

CPT 234 - C Programming I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This introductory course in C Programming emphasizes the designing, coding, testing, and debugging of C programs involving input/output operations, data types, storage classes, decision structures, looping, functions, preprocessor directives, arrays, and simple pointers.
Prerequisites: CPT 167.

CPT 242 - Database
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers database model and the fundamentals of database design. Topics include database structure, database processing, and application programs which access a database.
Prerequisites: CPT 234.

CPT 264 - Systems and Procedures Class
Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers the techniques of system analysis, design, development, and implementation.
Prerequisites: CPT 242 and IST 150.

CPT 285 - PC Hardware Concepts
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course focuses on installing and upgrading microcomputer hardware and identifying malfunctions.
Prerequisites: CPT 167.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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.
Prerequisites: Satisfactory writing placement score or a grade of C or higher in ENG 100 or in ENG 155 and satisfactory reading placement score or a grade of C or higher in RDG 100.

CPT 155 - Communications I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the principles of expository writing and public speaking through practice and development of communication skills.
Prerequisites: Satisfactory writing placement score or grade of C or higher in ENG 032 and satisfactory reading placement score or a grade of C or higher in RDG 100.
Note: This course cannot be used for an AA or AS degree.

ENG 156 - Communications II
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is the study of integrated project management for computer technology professionals with emphasis on the methods & software used by IT professionals, including task lists, Gantt charts, discussion of critical path statistical resource management, scheduling, budgeting, and economic factors.
Prerequisites: CPT 170.

IST 150 - Project Management Essentials for IT Professionals
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is the study of integrated project management for computer technology professionals with emphasis on the methods & software used by IT professionals, including task lists, Gantt charts, discussion of critical path statistical resource management, scheduling, budgeting, and economic factors.
Prerequisites: CPT 170.

IST 191 - LINUX System Administration
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course will provide students with the skills necessary to administer a LINUX system, including hardware/software configuration, user and group administration, LINUX network configuration, and file system management.
Prerequisites: CPT 167.

IST 241 - Network Architecture I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics: network terminology and protocols, OSI Network (LAN).
Prerequisites: IST 220.

IST 242 - Network Security I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of current and emerging network security technologies including network operating system architecture, the installation, configuration, monitoring and troubleshooting of network resources, and network administration functions such as user/group maintenance, network security, print services, remote access, fault tolerance, backup and recovery.
Prerequisites: IST 220.

IST 257 - LAN Network Server Technologies Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of network operating systems technologies including network operating system architecture, the installation, configuration, monitoring and troubleshooting of network resources, and network administration functions such as user/group maintenance, network security, print services, remote access, fault tolerance, backup and recovery.
Prerequisites: IST 220.

IST 266 - Internet and Firewall Security Class
Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to firewalls and other security network components that can work together to create an in-depth defensive perimeter around a Local Area Network (LAN).
Prerequisites: IST 220.

IST 268 - Computer Forensics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course provides students with a foundational knowledge in computer forensics investigation. Students are introduced to the skills, tools, and methods used to gather, document, and handle electronic evidence.
Prerequisites: IST 191.

IST 269 - Digital Forensics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course examines advanced technical aspects of digital computer evidence to include detection, collection, identification, and preservation. Emphasis is placed on specific tools and methods for extracting deleted or destroyed computer-related evidence.
Prerequisites: IST 268.

IST 272 - Relational Database Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course provides a comprehensive foundation in both SQL and relational database design and implementation. Dynamic and embedded SQL programming techniques are emphasized.
Prerequisites: CPT 242.

IST 291 - Fundamentals of Network Security I Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is the study of intro levels of security processes based on a security policy, emphasizing hands-on skills in the areas of secure perimeter, security connectivity, security management, identity services, and intrusion detection. The course prepares students to manage network security.
Prerequisites: IST 220.

MAT 110 - College Algebra
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics: polynomial, rational, logarithmic, and exponential functions; inequalities; systems of equations and inequalities; matrices; determinants; and solutions of higher degree polynomials.
Prerequisites: Satisfactory math placement score or MAT 102 with a grade of C or higher.
Note: Credit cannot be earned for both MAT 109 and MAT 110.

MAT 155 - Contemporary Mathematics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes techniques and applications of the following topics: elementary number theory; algebra; geometry; measurement; graph sketching and interpretations, and descriptive statistics.
Prerequisites: Satisfactory math placement score or MAT 032 with a grade of C or higher.
Note: This course cannot be used for an AA or AS degree.

MAT 120 - Probability and Statistics Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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.
Prerequisites: Satisfactory math placement score or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A and a satisfactory reading placement score or RDG 100 with a grade of C or higher or ENG 101 with a grade of C or higher.

SPC 205 - Public Speaking
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills.
Prerequisites: A grade of C or higher in ENG 101 or in ENG 105 or in ENG 155 or in ENG 156.
**If you plan to continue education beyond Associate Degree.**

**TAP credit available for CPT 170, CPT 270, IST 222 with successful completion of TAP exam. Additional TAP credit may be available. Talk with your high school instructor for more details.**

Graduate from High School with 12 or More Hours of College Credit

- Build a competitive and marketable resume for work in a variety of settings following high school.
- Earn 12 or more hours of college credit (dual enrollment + TAP) that you can use toward an Associate in Applied Science Degree in Computer Technology.
- Successful students are effective problem solvers, detail-oriented, and enjoy mathematics.
- Take your dual enrollment classes at a TCTC Campus alongside college students or at a college site in your district.
- Qualify for positions in a high-demand field expected to increase by 7.6% over the next 4 years.

**COMPUTER TECHNOLOGY: SOFTWARE AND WEB DEVELOPMENT EMPHASIS ASSOCIATE IN APPLIED SCIENCE DEGREE**
COURSE DESCRIPTIONS: COMPUTER TECHNOLOGY – SOFTWARE AND WEB DEVELOPMENT EMPHASIS

This degree emphasis in Software and Web Development provides applications software development skills in a variety of languages for delivery on a variety of platforms, such as computers, web, and mobile. Students learn additional skills in multiple areas of information technology, including databases, operating systems, technical support, and networking.

CPT 167 - Introduction to Programming Logic
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the concepts of programming using Visual Basic to create graphical user interfaces. The course examines forms, controls, graphical controls, loops, control arrays, database and traditional file processing, and application class scheduling.
Prerequisites: CPT 234.

CPT 242 - Database
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces database models and the fundamentals of database design. Topics include database structure, database processing, and application programs which access a database.
Prerequisites: CPT 234.

CPT 264 - Systems and Procedures
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers the techniques of system analysis, design, development, and implementation.
Prerequisites: CPT 242 and IST 150.

CPT 283 - PHP Programming I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the PHP programming language and will cover topics related to the syntax of PHP language and how PHP can be used to design and develop dynamic, database-driven web pages.
Prerequisites: CPT 234 and IST 222.

CPT 285 - PC Hardware Concepts
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course focuses on installing and upgrading microcomputer hardware and identifying malfunctions.
Prerequisites: CPT 167.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introductory course in C Programming using Visual Basic to create graphical user interfaces. The course examines forms, controls, graphical controls, loops, control arrays, database and traditional file processing, and application class scheduling.
Prerequisites: CPT 234.

IST 222 - Introduction to Webpage Production
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to the PHP programming language and will cover topics related to the syntax of PHP language and how PHP can be used to design and develop dynamic, database-driven web pages.
Prerequisites: CPT 234 and IST 222.

IST 150 – Project Management Essentials for IT Professionals
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course will provide students with the skills necessary to administer a LINUX system, including hardware/software configuration, user and group administration, LINUX network configuration, and file system management.
Prerequisites: CPT 176.

IST 191 - LINUX System Administration
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course focuses on changes in computer technology, including file maintenance, disk organization, batch files, and subdirectory concepts.
Prerequisites: CPT 167.

IST 227 - Intermediate Website Design
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of server-side (CGI; dynamic HTML) and client-side (JavaScript) dynamic web design, including the incorporation of database applications and content into web pages.
Prerequisites: CPT 234 and IST 222.

IST 257 - LAN Network Server Technologies
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to the principles of public speaking with application of speaking skills.
Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 or in ENG 156.

MAT 110 – College Algebra
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics: polynomial, rational, logarithmic, and exponential functions; inequalities; systems of equations and inequalities; matrices; determinants; and solutions of higher degree polynomials.
Prerequisites: Satisfactory math placement score or MAT 102 with a grade of C or higher.

MAT 155 - Contemporary Mathematics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes techniques and applications of the following topics: elementary number theory; algebra; geometry; measurement; graph sketching and interpretations, and descriptive statistics.
Prerequisites: Satisfactory math placement score or MAT 102 with a grade of C or higher.

MAT 120 - Probability and Statistics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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.
Prerequisites: Satisfactory math placement score or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A and a satisfactory reading placement score or RDG 100 with a grade of C or higher or ENGL 101 with a grade of C or higher.

SPC 205 - Public Speaking
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course provides a comprehensive foundation in both SQL and relational database design and implementation. Dynamic and embedded SQL programming techniques are emphasized.
Prerequisites: CPT 227.
For Criminal Justice/Law Enforcement Services students: TAP credit available for CRJ 120 (Program Elective)

*These classes if you plan to continue education beyond Associate Degree.

CRIMINAL JUSTICE TECHNOLOGY ASSOCIATE IN APPLIED SCIENCE DEGREE

Transfer Opportunities with 4-year Universities.

Andersen University
Bachelor of Arts Degree, CRIMINAL JUSTICE

Southern Wesleyan University
Bachelor of Science Degree, CRIMINAL JUSTICE STUDIES

Columbia College
Bachelor of Arts Degree, CRIMINAL JUSTICE

USC Upstate
Bachelor of Science Degree, CRIMINAL JUSTICE

Graduate from High School with 12 Hours of College Credit

- Build a competitive and marketable resume for positions in the criminal justice system, including law enforcement, courts, and corrections.
- Earn 12 hours of college credit that you can use toward an Associate in Applied Science Degree in Criminal Justice Technology. Additional college credit may be earned through Technical Advanced Placement (TAP).
- Characteristics of a successful CRJ student include caring nature, compassionate, reasonable, and articulate. Students must seek to make their communities a safer place for all.
- Students may also specialize in the following disciplines: Law Enforcement Operations, Loss Prevention and Security, or Paralegal Studies. Upon entry to Tri-County after high school, please see your advisor for these pathways.
- Take your dual enrollment classes at a TCTC Campus alongside college students or at a college site in your district.

Tri-County Technical College Contact:
Amanda Blanton
ablanton@tclc.edu

REvised 06/2018
COURSE DESCRIPTIONS: CRIMINAL JUSTICE TECHNOLOGY

Criminal Justice majors acquire the knowledge and skills needed to become working professionals in the very diverse criminal justice system, including law enforcement, security, court support, corrections, and many other human service positions.

CRJ 101 - Introduction to Criminal Justice
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes an overview of the functions and responsibilities of agencies involved in the administration of justice to include police organizations, court systems, correctional systems, and juvenile justice agencies.

CRJ 115 - Criminal Law I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers the development of criminal law in America. The basic elements of specific criminal offenses, criminal defenses, and various legal principles upon which criminal law is established are reviewed.

CRJ 116 - Criminal Law II
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes a study of criminal procedures and analyzes, from the legal perspective, the process from arrest to sentencing.

CRJ 125 - Criminology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the various theories of crime causation and control, the identification of criminal typologies, and the reaction of society to crime and criminals.

CRJ 140 - Criminal Justice Report Writing
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the proper preparation and retention of criminal justice records and reports, including observational skills, formatting, and the value of accurate, complete, and selective written articulation of information and observations.

CRJ 150 - Interviewing and Counseling
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the basic elements of human relationships in order to provide techniques for interviewing and conducting individual therapy. Small group dynamics and interview counseling sessions are examined as information gathering methods. Particular emphasis is placed on interpersonal relationships and the development of communication skills.

CRJ 222 - Ethics in Criminal Justice
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the application of ethical theories to the criminal justice profession.

CRJ 224 - Police Community Relations
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the importance of two-way communication between the criminal justice system and the community to foster a working relationship to control crime. A variety of topics are studied, including citizen involvement in crime prevention and police officer interpersonal relations.

CRJ 230 - Criminal Investigation I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the fundamentals of interviewing witnesses and interrogating suspects. Different methods of conducting crime scene searches and methods used in investigating various crimes are studied in the course.

CRJ 236 - Criminal Evidence
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the established rules of evidence from arrest to release in the administration of criminal justice.

CRJ 242 - Correctional Systems
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to aspects of the correctional function in criminal justice, including organization, process, procedure, and clients incarcerated and on conditional release.

CRJ 260 - Seminar in Criminal Justice
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes a study of new trends in criminal justice. This capstone course explores contemporary criminal justice perspectives and theoretical approaches to the study and understanding of the criminal justice system. Prerequisites: CRJ 101, CRJ 115, CRJ 116, and CRJ 125.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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. Prerequisites: Satisfactory COMPASS placement scores in both reading and writing.

MAT 120 - Probability and Statistics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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. Prerequisites: Satisfactory math placement score or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A and a satisfactory reading placement score or RDG 100 with a grade of C or higher.

MAT 155 - Contemporary Mathematics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes techniques and applications of the following topics: elementary number theory; algebra; geometry; measurement; graph sketching and interpretations, and descriptive statistics. Prerequisites: Satisfactory math placement score or MAT 032 with a grade of C or higher. Note: This course cannot be used for an AA or AS degree.

PSY 201 - General Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning, memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology. Prerequisites: Satisfactory reading and writing placement scores for ENG 101; or completion of ENG 100, ENG 101, ENG 103 or ENG 155 with a grade of C or higher; or satisfactory English placement scores for ENG 101 and completion of RDG 100 with a grade of C or higher. Note: BIO 101 strongly recommended.

PSY 207 - Forensic Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to psychological knowledge, concepts, and principles of forensic psychology. Topics include the application of research, procedures, and techniques to specific areas of law and the legal system as they relate to general psychological principles and methods. Prerequisites: PSY 201 with a grade of C or higher.

SOC 101 - Introduction to Sociology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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. Prerequisites: Satisfactory reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, ENG 103 or ENG 155 with a grade of C or higher.

SPC 205 - Public Speaking
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills. Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 or in ENG 156.
12th Grade:

FALL
- ENG 101
- MAT 101 or MAT 155
- PSY 201

SPRING
- SPC 205

High School Graduation
WITH 12 HOURS COLLEGE CREDIT

- ECD 101
- ECD 102
- ECD 131
- ECD 135
- COL 103

EARLY CARE AND
EDUCATION
ASSOCIATE IN APPLIED
SCIENCE DEGREE

Transfer Opportunity with 4-year university.

Southern Wesleyan University
Bachelor of Science Degree,
EARLY CHILDHOOD EDUCATION

Graduate from High School with
12 Hours of College Credit

- Build a competitive and marketable resume for positions in early childhood programs in a variety of settings.
- Earn up to 12 hours of college credit that you can use toward an Associate in Applied Science Degree in Early Care and Education.
- Successful students are empathetic, effective communicators, continuous learners, and conscientious.
- Take your dual enrollment classes at a TCTC Campus alongside college students or at a college site in your district.

Tri-County Technical College Contact:
Amanda Blanton
ablanton@tctc.edu

REVISED 07/2021
COURSE DESCRIPTIONS: EARLY CARE AND EDUCATION

The Early Care and Education program is designed to prepare students to work in early care and education settings that promote positive development and learning opportunities for young children. Program specific and general education requirements help to prepare students to use ethical guidelines and other professional standards related to early childhood practice.

**COL 103 - College Skills**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course may include selected topics such as career planning, study skills, stress management, campus resources, time management, memory techniques, and other subjects to facilitate student success.
Note: Students may not receive credit for both COL 105 and COL 103.

**ECD 101 - Introduction to Early Childhood**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an overview of growth and development, developmentally appropriate curriculum, positive guidance techniques, regulations, health, safety, and nutrition standards in early care and education. Professionalism, family/cultural values and practical applications based on historical and theoretical models in early care and education are highlighted in this course.

**ECD 102 - Growth and Development I**
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
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 105 - Guidance-Classroom Management**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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 108 - Family and Community Relations**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an overview of techniques and materials for promoting effective family/program partnerships to foster positive child development. Emphasis is on availability and accessibility of community resources and on developing appropriate communication skills.

**ECD 131 - Language Arts**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of methods and materials in age-appropriate language experiences. Opportunities are provided to develop listening, speaking, pre-reading 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**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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 and Math Concepts**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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.
Note: CPR and First Aid certifications received through online training programs are not acceptable and cannot be used to fulfill the CPR and First Aid requirement.

**ECD 201 - Principles of Ethics & Leadership in Early Care and Education**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes an overview of historical views on leadership and issues and challenges of leadership in early care and education. Emphasis is on current trends and issues. This course also reviews ethical principles as they relate to children, families, colleagues, and the community and society.

**ECD 203 - Growth and Development II**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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 237 - Methods and Materials**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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.
Prerequisites: Permission of Program Coordinator.

**ECD 243 - Supervised Field Experience I**
Class Hours: 1 Lab Hours: 6 Credit Hours: 3
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/Course-requisite: ECD 237.

**ENG 101 - English Composition I**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills.
Prerequisites: A grade of C or higher in ENG 101 or in ENG 153 or in ENG 155.
Note: This course cannot be used for an AA or AS degree.

**MAT 103 - Quantitative Reasoning**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is designed to develop quantitative reasoning and critical thinking skills. Topics include logic and computers, probability and statistics, financial mathematics, and additional applications selected to address areas of contemporary interest.
Prerequisites: Satisfactory math placement score or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A, and a satisfactory reading placement score or RDG 100 with a grade of C or higher.

**MAT 155 - Contemporary Mathematics**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes techniques and applications of the following topics: elementary number theory; algebra; geometry; measurement; graph sketching and interpretations, and descriptive statistics.
Prerequisites: Satisfactory math placement score or MAT 032 with a grade of C or higher.
Note: This course cannot be used for an AA or AS degree.

**SPC 205 - Public Speaking**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology.
Prerequisites: Reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, or ENG 155 with a grade of C or higher.
Note: BIO 101 strongly recommended.
12th Grade:

FALL
- ENG 101
- MAT 120
- Social Science (for example, PSY 211)

SPRING
- SPC 205
- ARV 231
- MAP 101
- MAP 150
- MAP 161

FALL
- MAP 141
- MAP 223
- MAP 280
- Program Elective

SUMMER
- MAP 160
- MAP 222

SPRING
- MAP 161
- MAP 220
- MAP 162

High School Graduation
WITH 12 HOURS
COLLEGE CREDIT

Graduate from High School with
12 Hours of College Credit

- Build a competitive and marketable resume
  for a variety of entry-level positions in a
  variety of settings, such as audio/video
  production, videography, TV/radio production,
  photojournalism, editing, and electronic media.

- Earn 12 hours of college credit that you can use
  toward an Associate in Applied Science Degree
  in Media Arts Production.

- Take your dual enrollment classes at a TCTC
  Campus alongside college students or at a
  college site in your district.

- Successful students are creative, effective
  communicators, interested in multiple forms
  of media, continuous learners, and enjoy
  technology.

TRI-COUNTY TECHNICAL COLLEGE
CONTACT:
Amanda Blanton
ablanton@tctc.edu

Entry-Level
226,000 Annually
Median
$45,000 Annually
COURSE DESCRIPTIONS: MEDIA ARTS PRODUCTION
The Media Arts Production program prepares students to write, light, shoot, record, and edit content for electronic media while developing personal talents and styles as communicators. Students learn to operate equipment in the field of mass communications and create content on multiple media platforms and are prepared for jobs in audio/video production, videography, TV/radio production, and journalism.

ARV 114 – Photography I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the principles, terminology, techniques, tools, and materials of basic photography.

ARV 227 – Web Site Design I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to the production of an interactive world wide web site.

ARV 231 – Digital Video Editing
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the skills necessary to effectively utilize contemporary Non-Linear Editing (NLE) programs designed for digital video production. The course focuses on the professional level tools used by local businesses.

ENG 101 – English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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.
Prerequisites: Satisfactory writing placement score or a grade of C or higher in ENG 100 or in ENG 155; AND satisfactory reading placement score or a grade of C or higher in RDG 100.

MAP 101 – Audio Techniques I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers an introduction to the tools and processes involved in audio production, including basic training in the operation of sound recording and playback systems. The fundamentals of sound are also covered.
Prerequisites: MAP 104.

MAP 104 – Radio Production I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to radio production techniques.
Prerequisites: MAP 101.

MAP 112 – Media Graphics I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to editing techniques used to create motion graphics and visual effects.
Prerequisites: ARV 231.

MAP 122 – Field Production I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the setup, operation, and application of video equipment for field production.

MAP 140 – Writing for Media Production
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is designed to teach writing techniques for radio, television, and other electronic media.

MAP 141 – Journalism for Media
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers the preparation of news in a form desirable for broadcasting and other electronic media.

MAP 150 – Studio Production I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers the basics of studio operations with emphasis on lighting, cameras, floor management, and control room operations.

MAP 160 – Introduction to Media Arts & Ethics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers the history, current trends and ethics of Media Arts.

MAP 161 – Media Literacy
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is the study of the creation and interpretation of visual and aural production techniques used in the electronic media.

MAP 223 – Interview and Discussion
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers the techniques for successfully interviewing people, whether for sound bites or for full-length interview programs.
Prerequisites: ARV 231.

MAP 226 – Producing and Directing
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers the planning and execution of production to create video programing across media platforms.
Prerequisites: ARV 231 and MAP 122.

MAP 280 – Media Arts Exit Portfolio
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the development of strategies for entering the media arts industry. Students will refine portfolio demo reels and resumes to meet professional standards.
Prerequisites: MAP 104 and MAP 226.

MAT 120 - Probability and Statistics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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.
Prerequisites: Satisfactory math placement score; or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A.

PSY 201 - General Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology.
Prerequisites: Reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, or ENG 155 with a grade of C or higher.
Note: BIO 101 strongly recommended.
For Health Science Technology students:
TAP credit available for AHS 102 with successful completion of TAP exam.

12th Grade:

**FALL**
- MAT 120 or MAT 121
- AHS 102

**SPRING**
- MAT 122 or MAT 123
- ENG 105 or ENG 106

Key points:
- Non-credit
- MAT 125 or MAT 126

**This class if you plan to continue education beyond**
Diploma in Expanded Duty Dental Assisting.

**High School Graduation**
WITH 12 HOURS COLLEGE CREDIT TOWARD COMPLETION OF DENTAL ASSISTING CURRICULUM

**SUMMER**
- DAT 122
- DAT 177

**FALL**
- MAT 111 or MAT 112
- DAT 174

**SPRING**
- DAT 175
- DAT 176

Graduate from High School with 12 Hours of College Credit

- Take your dual enrollment courses at one of TCTC's campuses alongside college students or at a college site in your school district.
- Get a head start on your Dental Assisting (DAT) program by completing some or all DAT general education courses while still in high school.
- Be ready to begin DAT courses in the fall and graduate with your Expanded Duty Dental Assisting Diploma in 3 semesters.
- Upon completion of the DAT program, become a Certified Dental Assistant by completing the Dental Assisting National Board (DANB).
- As a Dental Assistant, qualify for employment with dental offices.
- The number of Dental Assistants employed in this region is expected to increase by 9.4% over the next four years, according to the Bureau of Labor Statistics.

**TRI-COUNTY TECHNICAL COLLEGE CONTACT:**
Amanda Blanton - ablanton@tctc.edu

Annual Median $36,975

**EXIT NOW**
COURSE DESCRIPTIONS: EXPANDED DUTY DENTAL ASSISTING

Dental Assistants are multi-skilled dental professionals trained to work in many specialty areas of dentistry, including restorative dentistry and preventive oral health care. Students learn the skills necessary to provide patient education, apply pit and fissure sealants, produce intra-oral and extra-oral radiographs, polish teeth and fillings, assist the dentist, prepare dental materials, and manage dental offices.

AHS 102 - Medical Vocabulary
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers medical terms, including roots, prefixes, and suffixes, with emphasis on spelling, definition, and pronunciation.

DAT 112 - Integrated Human Sciences
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
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
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of physical and chemical properties of matter and identification, characteristics, and manipulation of dental materials.

DAT 115 - Ethics and Professionalism
Class Hours: 1 Lab Hours: 0 Credit Hours: 1
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
Class Hours: 1 Lab Hours: 3 Credit Hours: 2
This course emphasizes the development, eruption, and individual characteristics of each tooth and surrounding structures.

DAT 121 - Dental Health Education
Class Hours: 1 Lab Hours: 3 Credit Hours: 2
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.

DAT 122 - Dental Office Management
Class Hours: 1 Lab Hours: 3 Credit Hours: 2
This course provides a study of the business aspect of a dental office.

DAT 123 - Oral Medicine/Oral Biology
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course presents a basic study of oral pathology, pharmacology, nutrition, and common emergencies as related to the role of the dental assistant.

DAT 127 - Dental Radiography
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course provides the fundamental background and theory for the safe and effective use of x-ray equipment in dentistry. It encompasses the history of x-rays, production and uses of radiation, radiographic film, exposure factors, interpretation of radiographs, and radiation hygiene.

DAT 154 - Clinical Procedures I
Class Hours: 2 Lab Hours: 6 Credit Hours: 4
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 177 - Dental Office Experience
Class Hours: 2 Lab Hours: 15 Credit Hours: 7
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.

DAT 185 - Dental Specialties
Class Hours: 1 Lab Hours: 12 Credit Hours: 5
This course covers the equipment and procedures related to dental specialties used in clinical experiences.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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.

Prerequisites: Satisfactory writing placement score or a grade of C or higher in ENG 100.

ENG 155 - Communications I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the principles of expository writing and public speaking through practice and development of communication skills.

Prerequisites: Satisfactory writing placement score or a grade of C or higher in ENG 100 or in ENG 155 and satisfactory reading placement score or a grade of C or higher in RDG 100.

ENG 155 - Contemporary Mathematics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes techniques and applications of the following topics: elementary number theory: algebra; geometry; measurement; graph sketching and interpretations, and descriptive statistics.

Prerequisites: Satisfactory math placement score or MAT 032 with a grade of C or higher.

Note: This course cannot be used for an AA or AS degree.

PSY 103 - Human Relations
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of human relations, including the dynamics of behavior, interrelationships, and personality as applied in everyday life.

PSY 201 - General Psychology
Class Hours: 3 Lab Hours: 3 Credit Hours: 3
This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology.

Prerequisites: Reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, or ENG 155 with a grade of C or higher.

Note: BIO 101 strongly recommended.

SPC 205 - Public Speaking
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills.

Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 or in ENG 156.
**12th Grade:**

**FALL**
- ENG 120
- PS 201

**SUMMER**
- EMS 116
- EMS 117
- EMS 118
- EMS 213
- EMS 214
- EMS 215
- EMS 222

**SPRING**
- EMS 210
- EMS 211
- EMS 212

**High School Graduation**

**WITH 9 HOURS COLLEGE CREDIT**

**FALL**
- BIO 112
- EMS 110
- EMS 212
- SPC 205

**Tri-County Technical College**

**Graduate from High School with 9 hours of college credit**

- Take your dual enrollment courses at one of TCCTC’s campuses alongside college students or at a college site in your school district.
- Get a head start on general education courses while in high school to reduce your course load in college.
- After high school, take your EMT program courses at the TCCTC Easley Campus.
- Upon completion of the EMT degree, become a Paramedic by passing the National Registry of EMTs certification exam.
- There are currently 2,075 EMT and Paramedics employed in a 50-mile radius of Tri-County Technical College.
- It is projected that over 300 new EMT/Paramedics will be employed by 2028, a 15% increase in the number of currently employed EMT/Paramedics in the local area.

**Tri-County Technical College Contact:**
Amanda Blanton - ablanton@tctc.edu
COURSE DESCRIPTIONS: EMERGENCY MEDICAL TECHNOLOGY

The Emergency Medical Technology – Paramedic program is designed to prepare competent entry level Emergency Medical Technician – Paramedics for careers in the emergency medical profession. First-responders are dispatched via ambulance service or fire department to the scene of the emergency, assess the situation, and if necessary, order additional help.

BIO 112 - Basic Anatomy and Physiology
Class Hours: 4 Lab Hours: 2 Credit Hours: 4
This course is a basic integrated study of the structure and function of the human body. Topics include the anatomy and physiology of cells, tissues, organs, and systems. Laboratory requirement supplements lecture. Prerequisites: Completion of BIO 105 with a grade of C or higher recommended. Credit may not be earned for both BIO 112 and BIO 210. Note: This course will not satisfy any Associate of Science requirements.

CPT 170 - Microcomputer Applications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces microcomputer applications software, including word processing, databases, spreadsheets, graphs, and their integration. Note: Reading placement scores satisfactory for ENG 100 or ENG 155 is strongly recommended.

EMS 110 - Emergency Medical Technician
Class Hours: 3 Lab Hours: 6 Credit Hours: 5
This is an introductory course to the health care system and the function, role, and responsibility of emergency medical providers within the system. Emphasis is placed on legal and ethical practices and stress management. A team approach is emphasized in the study of the initial assessment and management of illness and injury.

EMS 111 - Advanced Emergency Care
Class Hours: 3 Lab Hours: 6 Credit Hours: 5
This course is a study of the concepts and skills related to general patient assessment, initial management of life threatening emergencies, airway management, pulmonary ventilation and oxygen administration, the pathophysiology of shock and treatment modalities for the shock syndrome, and pharmacological actions of groups of drugs and fluids. Emphasis is placed on administration of medication and fluid therapy, basic vehicle extrication, and rescue.

EMS 115 - International Trauma Life Support
Class Hours: 0.5 Lab Hours: 1.5 Credit Hours: 1
This course is designed to educate the experienced pre-hospital healthcare provider in dealing with critically injured trauma patients in an emergency setting. An understanding of trauma care equipment, basic trauma-related and assessment skills are necessary. Currently accepted guidelines for international trauma care will be followed.

EMS 116 - Advanced Cardiac Life Support
Class Hours: 0.5 Lab Hours: 1.5 Credit Hours: 1
This course is designed to educate the experienced healthcare provider in dealing with critical cardiac patients in an acute, emergency setting. An understanding of cardiovascular equipment, basic pharmacology and cardiovascular function is necessary. Current American Heart Association guidelines will be followed.

EMS 117 - Pediatric Advanced Life Support
Class Hours: 0.5 Lab Hours: 1.5 Credit Hours: 1
This course is designed to educate the experienced healthcare provider in dealing with critically injured pediatric patients suffering from acute cardiac and respiratory problems in an emergency setting. An understanding of cardiac equipment, basic pharmacology and cardiovascular function is necessary.

EMS 118 - Advanced Medical Life Support
Class Hours: 0.5 Lab Hours: 1.5 Credit Hours: 1
This course is designed to present students with a practical method for the management of adult patients suffering from various medical emergencies. Students will be provided with the practical knowledge and skills to effectively manage on-scene, adult medical emergencies.

EMS 119 - Emergency Medical Services Operations
Class Hours: 2 Lab Hours: 0 Credit Hours: 2
This course is a multi-faceted approach to theory of EMS operations. Topics include expanded provider roles, EMS systems overview, medical/legal aspects, theory of ambulance operations, mass casualty incident management, rescue awareness, crime scenes, terrorism, and weapons of mass destruction.

EMS 120 - Pharmacology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of concepts related to the pharmacological actions of groups of drugs and includes the development of skills related to the administration of medications and intravenous therapy. Physiology of systems affected drug action is also included in the course.

EMS 210 - Advanced Emergency Medical Care I
Class Hours: 4 Lab Hours: 3 Credit Hours: 5
This course is a study of emergency medical care procedures for the paramedic provider. It is designed to cover topics related to the preparation of a paramedic, the human body and body systems, operations and patient assessment. This course includes compressed content from EMS 213.

EMS 211 - Advanced Clinical Experience I
Class Hours: 1 Lab Hours: 6 Credit Hours: 3
This course includes hospital clinical experiences in obstetrics (labor/delivery), pediatrics, and emergency/trauma settings.

EMS 212 - EMS Field Internship
Class Hours: 0 Lab Hours: 6 Credit Hours: 2
This course includes experiences with advanced life support emergency medical services.

EMS 213 - Advanced Emergency Medical Care II
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of concepts related to EMS communications, trauma, obstetric/gynecological emergencies, neonatal transport, psychiatric emergencies, central nervous system, GI/GU systems, anaphylaxis, toxicologic emergencies, drug abuse, infectious diseases, geriatric and pediatric patients, and environmentally related emergencies.

EMS 214 - Advanced Clinical Experience II
Class Hours: 1 Lab Hours: 6 Credit Hours: 3
This course includes hospital clinical experiences in coronary care and emergency and trauma settings.

EMS 217 - Introduction to Electrocardiography
Class Hours: 1 Lab Hours: 3 Credit Hours: 2
This course covers the basic principles of recognizing and interpreting EKG tracings. Laboratory emphasis is placed on the operation of electrocardiographic equipment.

EMS 218 - EMS Management Seminar
Class Hours: 2 Lab Hours: 0 Credit Hours: 2
This course covers concepts related to the application of management skills to emergency medical services. Focus is on common problems which occur in the work setting utilizing a problem solving approach.

EMS 219 - Advanced EMS Field Internship II
Class Hours: 0 Lab Hours: 6 Credit Hours: 2
This course builds in the knowledge and skills of advanced emergency medical practice in the pre-hospital environment. Focus is on situations involving complex patient problems including trauma, surgical and medical emergencies and the treatment modalities.

EMS 220 - Paramedic Internship I
Class Hours: 0 Lab Hours: 9 Credit Hours: 3
This course includes experiences with advanced life support emergency medical service providers.

EMS 221 - Paramedic Internship II
Class Hours: 0 Lab Hours: 9 Credit Hours: 3
This course builds on the experiences gained in Paramedic Internship I. Focus is on the student and their ability to apply knowledge gained in the classroom during an emergency situation while treating a wide variety of patients in different situations.

EMS 222 - Paramedic Internship III
Class Hours: 0 Lab Hours: 9 Credit Hours: 3
This course builds on the experiences gained in Paramedic Internship II. Focus is centered on the student's ability to function as the EMS team leader and direct patient care in any emergency situation.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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. Prerequisites: Satisfactory placement scores in both reading and writing.

MAT 120 - Probability and Statistics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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. Prerequisites: Satisfactory math placement score; or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A.

PSY 201 - General Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology. Prerequisites: Reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, or ENG 155 with a grade of C or higher. Note: BIO 101 strongly recommended.

SPC 205 - Public Speaking
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills. Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 or in ENG 156.
For Health Science Technology students:
TAP credit available for AHS 102 with successful completion of TAP exam.

12th Grade:

**FALL**
- ENG 105 or ENG 107
- MAT 155 or MAT 107
- PSY 103 or PSY 201

**SPRING**
- ENG 106 or ENG 112
- MAT 156 or MAT 120
- PSY 103 or PSY 201

*These classes if you plan to continue education beyond Diploma in Medical Assisting.

**SPRING**
- MED 105
- MED 106
- MED 107
- MED 108
- MED 110
- MED 116
- MED 156

**SUMMER**
- AHS 101
- AHS 110

**FALL**
- MED 114
- MED 115
- MED 116
- MED 117
- BIO 110
- BIO 210

**Graduate from High School with up to 9 Hours of College Credit**

- Take your dual enrollment courses at one of TCTC’s campuses alongside college students or at a college site in your school district.
- Get a head start on your Medical Assisting (MED) program by completing some or all MED general education courses while still in high school.
- Be ready to begin MED courses in the fall and graduate with your Medical Assisting Diploma in 3 semesters.
- Upon completion of the MED program, become a Certified Medical Assistant after passing the AAMA (American Association of Medical Assistants).
- As a Medical Assistant, qualify for employment with physician offices, labs, or other ambulatory care centers.
- The Bureau of Labor Statistics predicts Medical Assisting as one of the fastest growing professions with an increase of 21% from 2019-2028.

**Tri-County Technical College Contact:**
Amanda Blanton - ablanton@tctc.edu

**REvised 9/2020**
COURSE DESCRIPTIONS: MEDICAL ASSISTING

Medical assistants are multi-skilled health professionals specifically educated to work in ambulatory settings, performing administrative and clinical duties. The practice of medical assisting directly influences the public's health and well-being and requires mastery of a complex body of knowledge and specialized skills requiring both formal education and practical experience that serve as standards for entry in the profession.

AHS 102 - Medical Terminology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers medical terms, including roots, prefixes, and suffixes, with emphasis on spelling, definition, and pronunciation.

AHS 104 - Medical Vocabulary/Anatomy and Physiology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the fundamental principles of medical terminology and includes a survey of human anatomy and physiology.

AHS 105 - Medical Ethics and Law
Class Hours: 2 Lab Hours: 0 Credit Hours: 2
This course provides a study of ethical conduct and legal responsibility related to health care.

BIO 112 - Basic Anatomy and Physiology
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a basic integrated study of the structure and function of the human body. Topics include the anatomy and physiology of cells, tissues, organs, and systems. Laboratory requirement supplements lectures. Prerequisites: Completion of BIO 105 with a grade of C or higher recommended. Credit may not be earned for both BIO 112 and BIO 210.

BIO 210 - Anatomy and Physiology I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This is the first in a sequence of courses, including an intensive coverage of the body as an integrated whole. All body systems are studied. Topics include terminology, biological chemistry, cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, special senses. Laboratory requirement supplements lectures. Prerequisites: Completion of BIO 101 or BIO 113 with a grade of C or higher.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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. Prerequisites: Satisfactory writing placement score or a grade of C or higher.

ENG 155 - Communications I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the principles of expository writing and public speaking through practice and development of communication skills. Prerequisites: Satisfactory writing placement score or a grade of C or higher.

MAT 120 - Probability and Statistics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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. Prerequisites: Satisfactory math placement score or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A. And a Compass reading score of 83 or RDG 100 with a grade of C or higher or ENG 101 with a grade of C or higher.

MAT 155 - Contemporary Mathematics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes techniques and applications of the following topics: elementary number theory; algebra; geometry; measurement; graph sketching and interpretations, and descriptive statistics. Prerequisites: Satisfactory math placement score or MAT 032 with a grade of C or higher.

MED 103 - Medical Assisting Introduction
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course provides an introduction to the profession of medical assisting, including qualifications, duties, and the role of the medical assistant.

MED 104 - Medical Assisting Administrative Procedures
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course provides a study of receptionist duties, patient record management, insurance claims processing, ICD-9CM, CPT and HCPCS coding, letter writing, computer applications, and the use of other business machines. Prerequisites: MED 115.

MED 107 - Medical Office Management
Class Hours: 4 Lab Hours: 0 Credit Hours: 4
This course provides a study of the principles and practices of banking and accounting procedures, billing methods, and office management.

MED 114 - Medical Assisting Clinical Procedures
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course covers examination room techniques, including vital signs, specialty examination, minor surgical techniques, and emergency procedures.

MED 115 - Medical Office Lab Procedures I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course provides a study of laboratory techniques commonly used in physicians' offices and other facilities. Prerequisites: MED 103.

MED 116 - Medical Office Lab Procedures II
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course includes the study of laboratory techniques commonly used in physicians' offices and other facilities. Prerequisites: MED 115.

MED 118 - Pharmacology for the Medical Assistant
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course provides a study of medical office pharmacology and drug calculations along with medication preparation and administration.

MED 156 - Clinical Experience I
Class Hours: 2 Lab Hours: 12 Credit Hours: 6
This course provides direct experience in a physician's office or other selected medical facilities. Prerequisites: MED 115.

PSY 103 - Human Relations
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of human relations, including the dynamics of behavior, interrelationships, and personality as applied in everyday life. Prerequisites: MED 115.

PSY 120 - Organizational Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of basic psychological principles of supervision and organizational dynamics and includes the application of psychological concepts of human behavior to the self, groups, and the workplace.

PSY 201 - General Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology. Prerequisites: Reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, or ENG 155 with a grade of C or higher.

Note: This course counts as elective credit only in the AA and AS degree programs.

TriCounty

TECHNICAL COLLEGE
### High School Graduation

**WITH UP TO 13 HOURS COLLEGE CREDIT TOWARD COMPLETION OF MEDICAL LABORATORY TECHNOLOGY CURRICULUM**

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<th>COURSE</th>
<th>FALL</th>
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<td>MLT 251</td>
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<td>MLT 252</td>
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<td>Elective</td>
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**12th Grade:**

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<tr>
<th>COURSE</th>
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<td>MLT 253</td>
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<td>MLT 254</td>
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<td>PSY 201</td>
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### MEDICAL LABORATORY TECHNOLOGY

**ASSOCIATE IN APPLIED SCIENCE DEGREE**

- Bachelor of Science Pathways with 4-year universities

### Microbiology with Biomedicine Concentration

**Bachelor of Science Degree**

Clemson University

### Medical Technology (MT) or Medical Laboratory Science (MLS)

**Bachelor of Science Degree**

Other Universities (online)

**Graduate from High School with up to 13 Hours of College Credit**

- Take your dual enrollment courses at one of TCTC’s campuses alongside college students or at a college site in your school district.
- Get a head start on your Medical Laboratory Technology (MLT) program by completing all MLT prerequisites while still in high school.
- Be ready to begin MLT courses in the fall.
- Upon completion of the MLT program, become a Medical Laboratory Technician and pass the ASCP (American Society of Clinical Pathologists) National Board of Certification exam.
- As an MLT, qualify for employment with hospitals, physician’s offices, or other labs.
- After earning your associate degree at TCTC, continue studies at Clemson University, or at other universities.
- The number of Medical Technologists/Technicians employed in this region is expected to increase by 10% over the next four years.

**TRI-COUNTY TECHNICAL COLLEGE**

Contact: Amanda Blanton - ablanton@tctc.edu

**REVISED 9/2020**
**COURSE DESCRIPTIONS: MEDICAL LABORATORY TECHNOLOGY**

Medical laboratory tests play an important part in the detection, diagnosis, and treatment of illness and disease, and as a student in this program, you will learn the methods and procedures used to perform these tests. One of the fastest growing sectors of the health care field, this program offers trained technicians excellent employment opportunities.

**BIO 112 - Basic Anatomy and Physiology**
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a basic integrated study of the structure and function of the human body. Topics include the anatomy and physiology of cells, tissues, organs, and systems. Laboratory requirement supplements lectures. Prerequisites: BIO 100 or BIO 105 with a grade of C or higher. Note: This course cannot be used for an AA or AS degree.

**ENG 101 - English Composition I**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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. Prerequisites: Satisfactory writing placement score or a grade of C or higher or ENG 101 with a grade of C or higher or a Compass reading score of 83 or RDG 100.

**ENG 102 - English Composition II**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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. Prerequisites: ENG 101 with a grade of C or higher.

**MAT 120 - Probability and Statistics**
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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. Prerequisites: Satisfactory math placement score or a grade of C or higher or RDG 100.

**MLT 101 - Introduction to Medical Laboratory Technology**
Class Hours: 1 Lab Hours: 3 Credit Hours: 2
This course provides an introduction to laboratory medicine, including techniques for routine laboratory procedures, medical terminology, safety, and an overview of each area within the laboratory.

**MLT 130 - Clinical Chemistry**
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course focuses on the study of nutritional, functional, and excretional chemicals in blood and body fluids including testing techniques and clinical significance.

**MLT 105 - Medical Microbiology**
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course provides a survey of organisms encountered in the clinical microbiology laboratory, including sterilization and disinfection techniques.

**MLT 115 - Immunology**
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course provides a study of the immune system, disease states, and the basic principles of immunological testing.

**MLT 230 - Advanced Clinical Chemistry**
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course includes advanced theory, principles, and instrument techniques used in clinical chemistry. Prerequisites: MLT 130 and BIO 112.

**MLT 110 - Hematology**
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course provides a study of the basic principles of hematology, including hemoglobin, hematocrits, white and red counts, and identification of blood cells.

**MLT 120 - Immunohematology**
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course introduces the theory and practice of blood banking, including the ABO, RH and other blood group systems, compatibility testing, and HDN. Prerequisites: MLT 115.

**MLT 205 - Advanced Microbiology**
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course provides a detailed study of microorganisms and the currently accepted procedures for identification of these microorganisms in the clinical laboratory. Prerequisites: MLT 105.

**MLT 210 - Advanced Hematology**
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course provides a study of the diseases of blood cells and other hematologic procedures including coagulation. Prerequisites: MLT 110.

**MLT 108 - Urinalysis and Body Fluids**
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course introduces the routine analysis and clinical significance of urine and other body fluids.

**MLT 251 - Clinical Experience I**
Class Hours: 0 Lab Hours: 15 Credit Hours: 5
This course provides an integrated, clinically based rotation which correlates cognitive and technical skills in selected areas of the clinical laboratory. Prerequisites: All first year courses.

**MLT 252 - Clinical Experience II**
Class Hours: 0 Lab Hours: 15 Credit Hours: 5
This course provides an integrated, clinically based rotation which correlates cognitive and technical skills in selected areas of the clinical laboratory. Prerequisites: MLT 251.

**MLT 253 - Clinical Experience III**
Class Hours: 0 Lab Hours: 15 Credit Hours: 5
This course provides an integrated, clinically based rotation which correlates cognitive and technical skills in selected areas of the clinical laboratory. Prerequisites: MLT 252.
Highly suggested for clinical entry: Complete the CNA certificate through your school’s Health Science Technology courses (if available) or take AHS 117 at TCTC.

**12th Grade:**

- **FALL:** BIO 210, ENG 120
- **SPRING:** BIO 210

*Optional, but needed to complete 4-year B.S. degree.

**SUMMER:** BIO 210 (recommended but may take in fall after HS)
- TEAS TEST
- Complete all Nursing applications requirements by May 31

**High School Graduation with 13 Hours College Credit:**

**FALL:** NUR 221, NUR 230, Humanities Requirement
- **SPRING:** NUR 225, NUR 229, SPC 205, NUR Elective
- **FALL:** NUR 211, NUR 114

**Associate in Applied Science Degree Nursing (ADN)**

**Bachelor of Science Nursing (BSN)** (Various options available at SC public and private colleges including Clemson University and USC)

**Master of Science Nursing (MSN)**

**Doctor of Science Nursing Practitioner (DNP)**

Graduate from High School with 13 hours of college credit

- Take your dual enrollment courses at one of TCTC’s campuses alongside college students or at a college site in your school district.
- Get a head start on qualifying for Nursing Clinical Entry while in high school and during the summer before your first fall semester.
- Upon completion of the Associate in Applied Science Degree Nursing (ADN) program, become a Licensed Registered Nurse after passing the state licensing exam.
- After earning your ADN at TCTC, continue your studies in nursing at many public and state colleges to earn a Bachelor of Science in Nursing (BSN), Master of Science in Nursing (MSN), and Doctorate of Nursing Practitioner (DNP).
- The number of employed nurses in the upstate of SC is expected to increase by 10% over the next nine years.

**Tri-County Technical College Contact:**
Amanda Blanton - ablanton@tcctc.edu

**REVISED 9/2020**
COURSE DESCRIPTIONS: ASSOCIATE DEGREE NURSING
The Associate Degree Nursing program prepares men and women to function effectively as registered nurses in a health care team. Nursing theory is integrated with supportive course from the humanities, mathematics, biological and behavioral sciences.

BIO 101 - Biological Science I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is the first in 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. Laboratory requirement supplements lectures. Prerequisites: Satisfactory placement test scores for ENG 101 and MAT 101, or completion of BIO 100 or BIO 105 and CHM 100. If a student does not earn a C or higher in 3 attempts at BIO 101, the following prerequisites will apply: BIO 100 or BIO 105 and CHM 100. All prerequisites require C or higher.
Note: Credit may not be earned for both BIO 101 and BIO 113.

BIO 210 - Anatomy and Physiology I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This is the first in a sequence of courses, including an intensive coverage of the body as an integrated whole. All body systems are studied. Topics include terminology, biological chemistry, cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, special senses. Lab requirement supplements lectures. Prerequisites: BIO 101 with a grade of C or higher.

BIO 211 - Anatomy and Physiology II
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This is a continuation of a sequence of courses, including an intensive coverage of the body as an integrated whole. All body systems are studied. A continuation of BIO 210, the following systems are studied: endocrine, circulatory, lymphatic, respiratory, digestive, urinary, fluids and electrolytes, reproductive. Lab requirement supplements lectures. Prerequisites: BIO 210 with a grade of C or higher.

BIO 225 - Microbiology
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
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. Prerequisites: Satisfactory writing placement test score or a grade of C or higher in ENG 101 or completion of BIO 100 or BIO 105 and CHM 100. If a student does not earn a C or higher in 3 attempts at ENG 101, the following prerequisites will apply: BIO 100 or BIO 105 and CHM 100. All prerequisites require C or higher.
Note: Credit may not be earned for both BIO 101 and BIO 113.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course 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. Prerequisites: ENG 101 with a grade of C or higher.

ENG 102 - English Composition II
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course 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. Prerequisites: ENG 101 with a grade of C or higher.

MAT 120 - Probability and Statistics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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. Prerequisites: Satisfactory math placement score; or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A. And a Compass reading score of 83 or RDG 100 with a grade of C or higher or ENG 101 with a grade of C or higher.

NUR 104 - Nursing Care Management I
Class Hours: 2.5 Lab Hours: 4.5 Credit Hours: 4
This course focuses on the knowledge, skills, and abilities that are fundamental to nursing practice with application in acute or extended care settings. Prerequisites: NUR 139 with a grade of B or higher.

NUR 106 - Pharmacologic Basics
Class Hours: 2 Lab Hours: 0 Credit Hours: 2
This introductory course outlines the basic concepts of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics. The process of clinical calculations is introduced as well as major drug classifications. Co-requisite: NUR 139 with a grade of B or higher.

NUR 139 - Introduction to Nursing Concepts
Class Hours: 2.5 Lab Hours: 1.5 Credit Hours: 3
This course introduces healthcare and nursing concepts that emphasize the role of the nurse in providing safe, effective, and outcome-driven care. Prerequisites: Admission to the program.

NUR 145 - Physiological Adaptation and Risk Reduction I
Class Hours: 2.5 Lab Hours: 4.5 Credit Hours: 4
This course introduces the role of the nurse in caring for and addressing the potential for complications in adult clients with altered health. Prerequisites: NUR 104, NUR 106 with a grade of B or higher.

NUR 146 - Physiological Adaptation and Risk Reduction II
Class Hours: 2.5 Lab Hours: 4.5 Credit Hours: 4
This course introduces the role of the nurse in caring for and addressing the potential for complications in one or more adult clients with altered health. Prerequisites: NUR 145 with a grade of B or higher.

NUR 229 - Nursing Care Management IV
Class Hours: 4 Lab Hours: 6 Credit Hours: 4
This course is a study of nursing care to clients throughout their lifespan who are experiencing complex, multi-system health problems. Focus will be on the care of childbearing and child-rearing families and will incorporate knowledge of expected growth and development principles, includes risk reduction and health promotion. Prerequisites: NUR 146, NUR 162 with a grade of B or higher.

NUR 230 - Physical Assessment
Class Hours: 1.5 Lab Hours: 4.5 Credit Hours: 3
This course facilitates the development of competence to perform a physical assessment. Prerequisites: NUR 229 with a grade of B or higher.

PSY 201 - General Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology. Prerequisites: Reading and writing placement scores for ENG 101 or completion of ENG 101, or ENG 155 with a grade of C or higher.
Note: BIO 101 strongly recommended.

SPC 205 - Public Speaking
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills. Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 or in ENG 156.
Highly suggested for clinical entry:
Complete the CNA certificate through your school's Health Science Technology courses (if available) or take AHS 117 at TCTC.

12th Grade:

12th Grade: FALL 12th Grade: SPRING

SUMMER

High School Graduation WITH 13 HOURS COLLEGE CREDIT

• TEAS TEST
• Complete all Practical Nursing application requirements by May 31

PRACTICAL NURSING DIPLOMA

Graduate from High School with 13 hours of college credit

• Take your dual enrollment courses at one of TCTC’s campuses alongside college students or at a college site in your school district.
• Get a head start on general education courses while in high school to reduce your course load in college.
• Upon completion of the Practical Nursing program, become a Licensed Practical Nurse after passing the state licensing exam.
• The number of employed practical nurses in the upstate of SC is expected to increase by 10% over the next nine years.

Tri-County Technical College Contact:
Amanda Blanton - ablanton@tctc.edu

Anually Median $41,095

Tri-County Technical College
COURSE DESCRIPTIONS: PRACTICAL NURSING

The Practical Nursing program prepares students for employment as beginning level nurses under the direction of a registered nurse or a physician. Employment opportunities are available in a variety of settings, including acute care hospitals, long care hospitals, physicians' offices and clinics, local public health departments, and home health agencies.

BIO 101 - Biological Science I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of the scientific method, basic biochemistry, cell structure and function, cell physiology, cell reproduction and development, Mendelian genetics, population genetics, natural selection, evolution, and ecology. Laboratory requirement supplements lecture. Prerequisites: Satisfactory placement test scores for ENG 101 or completion of ENG 103, ENG 155 or ENG 100 and RDG 100. Satisfactory placement test scores for MAT 101 or completion of MAT 101 or MAT 032. Completion of BIO 105 and CHEM 105 replaces MAT and ENG prerequisites. All prerequisite courses require a grade of C or higher.
Note: Credit may not be earned for both BIO 101 and BIO 105 or BIO 113.

BIO 210 - Anatomy and Physiology I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This is the first in a sequence of courses, including an intensive coverage of the body as an integrated whole. All body systems are studied. Topics include terminology, biological chemistry, cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, special senses. Lab requirement supplements lectures. Prerequisites: BIO 101 with a grade of C or higher.

BIO 211 - Anatomy and Physiology II
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This is a continuation of a sequence of courses, including an intensive coverage of the body as an integrated whole. All body systems are studied. A continuation of BIO 210, the following systems are studied: endocrine, circulatory, lymphatic, respiratory, digestive, urinary, fluids and electrolytes, reproductive. Lab requirement supplements lectures. Prerequisites: BIO 210 with a grade of C or higher.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This is a college 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. Prerequisites: Satisfactory writing placement score or a grade of C or higher in ENG 100 or in ENG 155 and satisfactory reading placement score or a grade of C or higher in RDG 100.

MAT 120 - Probability and Statistics
Class Hours: 3 Lab Hours: 6 Credit Hours: 5
This 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.
Prerequisites: Satisfactory math placement score or MAT 102 with a grade of C or higher, or MAT 101 with a grade of A. And a Compass reading score of 83 or RDG 100 with a grade of C or higher or ENG 101 with a grade of C or higher.

PNR 120 - Medical/Surgical Nursing I
Class Hours: 3 Lab Hours: 6 Credit Hours: 5
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.
Co-requisite: PNR 175.

PNR 121 - Fundamentals of Pharmacology
Class Hours: 2 Lab Hours: 0 Credit Hours: 3
This course is an introduction to basic concepts of pharmacology. Dosage calculations, medication administration, and common drug classifications are among the concepts explored.
Prerequisites: Admission to the program and satisfactory placement levels for MAT 120 or completion of MAT 102 or MAT 120.

PNR 130 - Medical/Surgical Nursing II
Class Hours: 3 Lab Hours: 6 Credit Hours: 5
This course is a continuation of the study utilizing the nursing process. Concepts studied include the physiological, psychosocial, nutritional, and safety needs of the adult. Clinical experiences address the selected commonly occurring health problems having predictable outcomes.
Prerequisites: PNR 120 and BIO 210.

PNR 140 - Medical/Surgical Nursing III
Class Hours: 3 Lab Hours: 6 Credit Hours: 5
This course is a continuation of the 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.
Prerequisites: PNR 130.

PNR 154 - Maternal/Infant/Child Nursing
Class Hours: 3 Lab Hours: 6 Credit Hours: 5
This course is a study utilizing the nursing process to meet the needs of the childbearing family. Clinical experiences address the care of the mother, newborn, and the care of the child with commonly occurring diseases.
Prerequisites: PNR 140.

PNR 175 - Practical Nursing Skills
Class Hours: 2 Lab Hours: 6 Credit Hours: 4
This course provides refinement of skills used in the nursing process. Organizational skills, legal and ethical aspects of practical nursing, and career opportunities are emphasized.
Prerequisites: Admission to the program.

PNR 181 - Special Topics in Practical Nursing
Class Hours: 1 Lab Hours: 0 Credit Hours: 1
This course covers special topics in practical nursing.
Prerequisites: PNR 130.

PSY 201 - General Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology.
Prerequisites: Reading and writing placement scores for ENG 101 or completion of ENG 103, ENG 155 or ENG 101 with a grade of C or higher.
Note: BIO 101 strongly recommended.
High School biology and chemistry strongly recommended.

12th Grade:

**FALL**
- ENG 101
- ENG 102
- MAT 120

**SPRING**
- PSY 201
- Communications/Social Science Course

**FALL**
- BIO 101
- Communications/Social Science Course

**SUMMER**
- BIO 102

**SPRING**
- BIO 210
- Communications/Social Science Course

**SPRING**
- CHM 201
- PHC 206
- Humanities Course

**FALL**
- CHM 202
- CHM 213
- ECO 211

**SUMMER**
- MAT 120

**SPRING**
- MAT 120

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**Graduate from High School with 12 Hours of College Credit**

- Take your dual enrollment courses at one of TCTC’s campuses alongside college students or at a college site in your school district.
- Upon completion of Associate in Applied Science Degree, apply directly to the SC College of Pharmacy, Presbyterian College School of Pharmacy, South University College of Pharmacy or with individualized advisement, other colleges of pharmacy in the Southeastern US.
- The number of Pharmacists employed in the local area is expected to increase by 2.6% over the next ten years.

**Tri-County Technical College Contact:**
Amanda Blanton - ablanton@tctc.edu

**SC College of Pharmacy**
- Presbyterian College School of Pharmacy
- South University College of Pharmacy
- Other Colleges of Pharmacy in the Southeastern US (with individualized advisement)

**Exit Now**
Annual Median $32,968

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**PRE-PHARMACY CONCENTRATION**
**GENERAL TECHNOLOGY ASSOCIATE IN APPLIED SCIENCE DEGREE**

**Pathways into SC Pharmacy Schools**
COURSE DESCRIPTIONS: PRE-PHARMACY

The Pre-Pharmacy degree fulfills prerequisite requirements for applications to the SC College of Pharmacy, Presbyterian College School of Pharmacy, and South University College of Pharmacy. This program, with individual advisement, will also meet most requirements for college of pharmacy in the Southeastern U.S. Some colleges of pharmacy may require additional course work.

AHS 180 – Health Careers Preparation
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes selected topics such as study skills, test-taking skills, critical thinking, problem solving, ethics, health careers test preparation and other topics to promote student success.

BIO 101 - Biological Science I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of the scientific method, basic biochemistry, cell structure and function, cell physiology, cell reproduction and development, Mendelian genetics, population genetics, natural selection, evolution, and ecology. Laboratory requirement supplements lectures.
Prerequisites: Satisfactory placement test scores for ENG 101 or completion of ENG 101, ENG 103, or ENG 100 and RDG 100. Satisfactory placement test scores for MAT 101 or completion of MAT 101 or MAT 032. Completion of BIO 105 and CHM 105 replaces ENG and BIO prerequisites. All prerequisite courses require a grade of C or higher.
Note: Credit may not be earned for both BIO 101 and BIO 105 or BIO 113.

BIO 102 - Biological Science II
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of the 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. Laboratory requirement supplements lectures.
Prerequisites: Completion of BIO 101 or BIO 113 with a grade of C or higher.
Note: Credit may not be earned for both BIO 102 and BIO 114.

BIO 210 - Anatomy and Physiology I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This is the first in a sequence of courses, including an intensive coverage of the body as an integrated whole. All body systems are studied. Topics include terminology, skeletal, muscular, nervous, special senses. Lab requirement supplements lectures.
Prerequisites: Completion of BIO 101 or BIO 113 with a grade of C or higher.
Note: Credit may not be earned for both BIO 210 and BIO 112.

BIO 211 - Anatomy and Physiology II
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This 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. Healing processes and molecular structure will also be covered. Lab requirement supplements lectures.
Prerequisites: Math placement score satisfactory for MAT 109 or MAT 110 or completion of MAT 102, MAT 109, or MAT 110. Reading placement score satisfactory for ENG 101, ENG 103 or ENG 155. A grade of C or higher must be earned in all prerequisite courses. Credit may not be earned for both CHM 110 and CHM 106.
Note: High school college preparatory chemistry is strongly recommended.

CHM 111 - College Chemistry I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is the first 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. Other topics include are kinetics, thermodynamics, and electrochemistry. Lab requirement supplements lectures.
Prerequisites: Completion of CHM 110 with a grade of C or higher. Completion of MAT 109 or MAT 110 or satisfactory math placement test scores for MAT 130 or MAT 140. All prerequisites must have a grade of C or higher.
Note: Credit may not be earned for both CHM 111 and CHM 107.

CHM 211 - Organic Chemistry I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This is the first in a sequence of courses that includes nomenclature, structure and properties, and reaction mechanisms of basic organic chemistry. Laboratory requirement supplements lectures.
Prerequisites: Completion of CHM 111 with a grade of C or higher.

CHM 212 - Organic Chemistry II
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a continuation of basic organic chemistry. Topics include nomenclature, structure and properties, reaction mechanisms of basic organic chemistry, biochemistry, and spectroscopy. Laboratory requirement supplements lectures.
Prerequisites: Completion of CHM 211 with a grade of C or higher.

MAT 20 - Probability and Statistics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This 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.
Prerequisites: Satisfactory math placement score; or MAT 102 with a grade of C or higher; or MAT 101 with a grade of A and a Compass reading score of 83 or RDG 100 with a grade of C or higher or ENG 101 with a grade of C or higher.

MAT 130 - Elementary Calculus
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics: differentiation and integration of polynomial, rational, logarithmic, and exponential functions and interpretation and application of these processes. Prerequisites: Satisfactory math placement score or MAT 109 with a grade of C or higher and a Compass reading score of 83 or RDG 100 with a grade of C or higher or ENG 101 with a grade of C or higher.

PHY 201 - Physics I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This is the first in a sequence of physics courses. Topics include mechanics, wave motion, sound, heat, electromagnetism, optics, and modern physics. This course covers mechanics, waves, fluids, and heat. As a transfer course, PHY 201 is designed for non-physical science and non-engineering majors. Lab requirement supplements lectures.
Prerequisites: Satisfactory placement scores for MAT 111, MAT 130, or MAT 140 or completion of MAT 110 with a grade of C or higher.
Note: Credit may not be earned for both PHY 201 and PHY 221 or PHY 101.

PSY 201 - General Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology.
Prerequisites: Satisfactory reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, ENG 103, or ENG 155 with a grade of C or higher.
Note: BIOL 101 strongly recommended.

SPC 205 - Public Speaking
Class Hours: 0 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills.
Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 in ENG 105.
For Health Science Technology students:
TAP credit available for AHS 102 with successful completion of TAP exam.

12th Grade:

FALL
- MAT 155 or MAT 150
- AHS 102 (no TAP credit)

SPRING
- BIO 115
- ENG 155 or ENG 151*

*These classes if you plan to continue education beyond Diploma in Surgical Technology

SUMMER
- BIO 112

High School Graduation
WITH 12 HOURS COLLEGE CREDIT TOWARD COMPLETION OF SURGICAL TECHNOLOGY CURRICULUM

Graduate from High School with 12 Hours of College Credit

- Take your dual enrollment courses at one of TCTC’s campuses alongside college students or at a college site in your school district.
- Get a head start on your Surgical Technology (SUR) program by completing some or all SUR general education courses while still in high school.
- Be ready to begin SUR courses in the fall and graduate with your Surgical Technology Diploma in 4 terms.
- Upon completion of the SUR program, become a Certified Surgical Technologist after passing the NABTSA (National Board of Surgical Technology and Surgical Assisting) certification exam.
- As a CST (Certified Surgical Technologist), qualify for employment with hospitals, physician offices, or outpatient surgery centers.
- The Bureau of Labor Statistics estimates the number of Surgical Technologists employed in this region is expected to increase by 5.4% over the next four years.

TRI-COUNTY TECHNICAL COLLEGE CONTACT:
Amanda Blanton - ablanton@tctc.edu

REVISED 9/2020
COURSE DESCRIPTIONS: SURGICAL TECHNOLOGY

The Surgical Technology program prepares students to perform various duties during surgery, by assisting in the maintenance of an aseptic environment through a system of specific techniques and practices. The technologist contributes to overall patient care as part of the surgical team by passing equipment and instruments to the surgeon, assisting the surgeon, selecting instruments for surgical cases, setting up cases, and assisting the circulatory personnel intraoperatively. Surgical Technologists may find employment in hospitals, clinics, or physicians' offices. Hospital employment areas include operating and emergency rooms, labor and delivery, endoscopy units, central sterile processing areas, and ambulatory surgery centers.

AHS 102 - Medical Terminology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course covers medical terms, including roots, prefixes and suffixes, with emphasis on spelling, definition, and pronunciation.

BIO 112 - Basic Anatomy and Physiology
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a basic integrated study of the structure and function of the human body. Topics include the anatomy and physiology of cells, tissues, organs, and systems. Laboratory requirement supplements lectures.
Prerequisites: BIO 101, BIO 105 or BIO 113 with a grade of C or higher or permission of the department head.
Credit may not be earned for both BIO 112 and BIO 210.
Note: This course will not satisfy any Associate of Science requirements.

BIO 115 - Basic Microbiology
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This is a general course in microbiology, including epidemiology, presence, control, and identification of microorganisms. The microorganisms studied will include bacteria, fungi, and viruses. Laboratory requirement supplements lectures.
Prerequisites: Completion of BIO 105 or BIO 101 with a grade of C or higher.
Credit may not be earned for both BIO 115 and BIO 225.
Note: This course will not satisfy any Associate of Science requirements.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This is a (college transfer) course in which the following topics are presented: 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.
Prerequisites: Satisfactory writing placement score or a grade of C or higher in ENG 032 and satisfactory reading placement score or a grade of C or higher in RDG 100.

ENG 155 - Communications I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces the principles of expository writing and public speaking through practice and development of communication skills.
Prerequisites: Satisfactory writing placement score or a grade of C or higher in ENG 032 and satisfactory reading placement score or a grade of C or higher in RDG 100.
Note: This course cannot be used for an AA or AS degree.

MAT 155 - Contemporary Mathematics
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes techniques and applications of the following topics: elementary number theory; algebra; geometry; measurement; graph sketching and interpretations, and descriptive statistics.
Prerequisites: Satisfactory math placement score or MAT 032 with a grade of C or higher.
Note: This course cannot be used for an AA or AS degree.

PSY 103 - Human Relations
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of human relations, including the dynamics of behavior, interrelationships, and personality as applied in everyday life.

PSY 201 - General Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology.
Prerequisites: Reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, or ENG 155 with a grade of C or higher.
Note: BIO 101 strongly recommended.

SPC 205 - Public Speaking
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is an introduction to principles of public speaking with application of speaking skills.
Prerequisites: A grade of C or higher in ENG 101 or in ENG 155 or in ENG 156.

SUR 101 - Introduction to Surgical Technology
Class Hours: 4 Lab Hours: 3 Credit Hours: 5
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.
Prerequisites: A grade of C or higher in BIO 112, BIO 115, and AHS 102.

SUR 102 - Applied Surgical Technology
Class Hours: 4 Lab Hours: 3 Credit Hours: 5
This course covers the principles and application of aseptic technique, the perioperative role, and medical/legal aspects.

SUR 103 - Surgical Procedures I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
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.
Co-requisite: SUR 104.

SUR 104 - Surgical Procedures II
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of the various specialties of surgical procedures.
Co-requisite: SUR 103.

SUR 110 - Introduction to Surgical Practicum
Class Hours: 0 Lab Hours: 15 Credit Hours: 7
This course includes the application of theory under supervision in the perioperative role in various clinical affiliations.

SUR 111 - Basic Surgical Practicum
Class Hours: 2 Lab Hours: 15 Credit Hours: 7
This course is a study of the various specialties of surgical procedures.

SUR 120 - Surgical Seminar
Class Hours: 2 Lab Hours: 0 Credit Hours: 2
This course includes the comprehensive correlation of theory and practice in the perioperative role.
Prerequisites: SUR 104.
Career Pathways for Success

12th Grade:

High School Graduation
WITH 13 HOURS COLLEGE CREDIT
AND COMPLETION OF
PRE-VETERINARY TECHNOLOGY CURRICULUM

*Optional, but needed to complete some 4-year B.S. degrees.

VETERINARY TECHNOLOGY ASSOCIATE DEGREE

- Bachelor of Science 2+2 Agreements with 4-year universities

AGRICULTURE
Bachelor of Science Degree
Clemson University

VETERINARY TECHNOLOGY
Bachelor of Science Degree
Murray State University (KY)
Lincoln Memorial University (TN)

Graduate from High School with 13 Hours of College Credit

- Take your dual enrollment courses at one of TCTC’s campuses alongside college students or at a college site in your school district.
- Get a head start on your Veterinary Technology program by completing Veterinary Technology prerequisites while still in high school.
- Complete VET 113 in summer term and be ready to begin Veterinary Technology courses in the fall.
- Upon completion of the Veterinary Technology program, become a Licensed Veterinary Technician (LVT) after passing the national and state licensing exams.
- As an LVT, qualify for employment with veterinary clinics, major teaching facilities, zoos, wildlife preserves, animal research and diagnostic labs, pharmaceutical companies, or any other animal related facility.
- After earning your associate degree at TCTC, continue studies in Agribusiness at Clemson University or in Veterinary Technology at Murray State University (Kentucky) or at Lincoln Memorial University (Tennessee).

The number of Veterinary Technologists/Technicians employed in this region continues to increase due to the rapid demand in animal health care.

Tri-County Technical College Contact:
Amanda Blanton
ablanton@cttc.edu

revised 9/2020
COURSE DESCRIPTIONS: VETERINARY TECHNOLOGY

Veterinary Technology is a career dedicated to the health and wellbeing of animals. Licensed veterinary technicians provide professional and technical support to veterinarians, biologists, researchers, and industry, by providing patient care, including anesthesia and surgical support, diagnostic imaging, and laboratory procedures.

BIO 101 - Biological Science I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of the scientific method, basic biochemistry, cell structure and function, cell physiology, cell reproduction and development, Mendelian genetics, population genetics, natural selection, evolution, and ecology. Laboratory requirement supplements lectures. Prerequisites: Satisfactory placement test scores for ENG 101 or completion of ENG 101, ENG 103, or ENG 100 and RDG 100. Satisfactory placement test scores for MAT 101 or completion of MAT 101 or MAT 032. Completion of BIO 105 and CHM 105 replaces MAT and ENG prerequisites. All prerequisite courses require a grade of C or higher. Note: Credit may not be earned for both BIO 101 and BIO 105 or BIO 113.

BIO 225 - Microbiology
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This 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. Laboratory requirement supplements lectures. Prerequisites: BIO 101 with a grade of C or higher.

ENG 101 - English Composition I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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. Prerequisites: Satisfactory writing placement score or GPA of 2.0 or higher in ENG 100 or ENG 155 and RDG 100.

ENG 104 - Veterinary Anatomy and Physiology
Class Hours: 2 Lab Hours: 0 Credit Hours: 3
This course provides a general survey of the functional anatomy and physiology of the domestic animals commonly encountered in veterinary medicine. Dissection of representative cadavers is performed in the laboratory. Prerequisites: VET 103.

ENG 113 - Introduction to Veterinary Technology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course introduces veterinary medical terminology, anatomy, physiology, and related areas of veterinary medicine. It will also introduce the student to job opportunities and the characteristics it takes to be successful in this field. Prerequisites: Satisfactory placement test scores for ENG 101 or completion of ENG 101 or ENG 100 and RDG 100.

ENG 116 - Radiology and Parasitology
Class Hours: 1 Lab Hours: 6 Credit Hours: 3
This course is the study of the radiologic techniques for all domestic animals in veterinary medicine, including taking, developing, and assessing for technical errors of large and small animal radiographs. This course also includes a survey and laboratory study of domestic animal parasitology.

ENG 140 - Veterinary Pharmacology
Class Hours: 3 Lab Hours: 0 Credit Hours: 2
This course is the study of the principles of pharmacology and the pharmaceutical products used in veterinary medicine. Prerequisites: VET 150.

ENG 142 - Veterinary Anesthesia
Class Hours: 3 Lab Hours: 3 Credit Hours: 3
This course is the study of the principles and practical uses of anesthesia in veterinary medicine. Prerequisites: VET 150.

ENG 150 - Clinical Techniques I
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course includes a survey of the technical skills required by the veterinary technician in dealing with all domestic animals. The course includes techniques in restraint, handling, administration of medications, and collection of bodily specimens. Prerequisites: VET 105.

ENG 152 - Clinical Pathology
Class Hours: 2 Lab Hours: 6 Credit Hours: 4
This course provides a study of veterinary hematology, urology, and clinical chemistry followed by application of standard laboratory procedures and regulatory testing in each of these disciplines. Prerequisites: VET 150.

ENG 160 - Clinical Techniques II
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course provides a survey of technical skills required by the veterinary technician with emphasis on radiographic and anesthetic procedures. Prerequisites: VET 150.

ENG 170 - Veterinary Technician Externship
Class Hours: 0 Lab Hours: 24 Credit Hours: 6
This course provides clinical training in the veterinary field under the direct supervision of a licensed veterinarian in a veterinary facility. Prerequisites: Completion of first-year veterinary technology courses.

ENG 201 - Diseases and Zoonosis
Class Hours: 4 Lab Hours: 0 Credit Hours: 4
This course provides a study of domestic animal diseases, including their causes, symptoms, prevention, treatment, and public health significance. Prerequisites: VET 170.

ENG 215 - Laboratory Animal Medicine
Class Hours: 1 Lab Hours: 3 Credit Hours: 2
This course provides a study of the animals and facilities used in research procedures in medicine. The course includes equipment, aseptic techniques, vivarium management, husbandry, and disease prevention in laboratory animals. Prerequisites: VET 160.

ENG 240 - Office Management and Client Education
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course provides a study of office management, including the use of the computer in veterinary medical facilities. The course also includes an in-depth study of veterinary ethics and client education techniques. Prerequisites: VET 160.

ENG 250 - Clinical Techniques III
Class Hours: 1 Lab Hours: 6 Credit Hours: 3
This course includes a survey of technical skills required by the veterinary technician with emphasis on laboratory techniques. Prerequisites: VET 170.

ENG 260 - Clinical Techniques IV
Class Hours: 1 Lab Hours: 6 Credit Hours: 3
This course will survey technical skills required by veterinary technicians with emphasis on medical and surgical emergencies. Prerequisites: VET 250.

ENG 270 - Advanced Medical Care
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course provides a study of the technician’s role in emergency medical and surgical procedures. This course includes a survey of diagnostic procedures. Prerequisites: VET 170.

ENG 280 - Senior Seminar
Class Hours: 1 Lab Hours: 0 Credit Hours: 1
This course allows various topics applicable to the second-year student’s curriculum to be discussed in small groups. This includes, but is not limited to, issues arising from the veterinary technician externship. Prerequisites: VET 170.
CNC PROGRAMMING AND OPERATIONS ASSOCIATE IN APPLIED SCIENCE DEGREE

**High School Graduation + Introduction to Machining Certificate**

- **11th** or **12th Grade:**
  - **MTT 141**
  - **EGT 165**
  - **MAT 170**
  - General Education Course
  - Social Science Requirement

**CPS CAREER PATHWAYS FOR SUCCESS**

- **11th** or **12th Grade:**
  - **MTT 141**
  - **EGT 165**
  - **MAT 170**
  - General Education Course
  - Social Science Requirement

**FALL**
- **MTT 253**
- **ENG 265**
- **EMT 265**
- **MTT 258**
- **MTT 261**

**SUMMER**
- **MTT 252**
- **ENG 263**
- **MTT 258**
- **MTT 261**

**SPRING**
- **MTT 255**
- **ENG 265**
- **MTT 252**
- **MTT 255**

**EXIT NOW**
- Local Annual Median: $37,000
- Average: $51,028
- High: $69,177

**Graduate from High School with 10 Hours of College Credit and Introduction to Machining Certificate**

- Take your dual enrollment classes at the TCTC Industrial Technology Center in Sandy Springs, Monday through Thursday in the afternoon.
- Build a competitive and marketable resume for a variety of employment opportunities, primarily in advanced manufacturing where jobs are plentiful.
- After high school graduation, seamlessly transition into the Associate in Applied Science Degree CNC program at the TCTC Industrial Technology Center in Sandy Springs.
- Qualify for positions in a high-demand field in which the number of jobs is expected to increase by 13% over the next 9 years.

**Tri-County Technical College Contact:**
Amanda Blanton • ablanton@tctc.edu

**2+2 Agreement with Greenville Technical College**
COURSE DESCRIPTIONS: CNC PROGRAMMING AND OPERATIONS

CNC Programming and Operations will prepare graduates to work as CNC programmers and operators with manufacturers requiring high production volumes or short run batches of discrete parts. In addition to writing CNC programs, students will learn CAD design and analysis applications, create precision set-ups, select tooling, and operate a variety of CNC milling and turning centers.

EGT 106 - Print Reading and Sketching
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course covers the interpretation of basic engineering drawings and sketching techniques for making multi-view pictorial representations.

EGT 152 - Fundamentals of CAD
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course includes a related series of problems and exercises utilizing the computer graphics station as a drafting tool. Course topics will feature an introduction to pictorial presentations including 3-D wire frame and solid models.

EGT 165 - Introduction to CAD/CAM
Class Hours: 1 Lab Hours: 3 Credit Hours: 2
This course covers the basic principles of CNC machine operation, fixtureing required to clamp parts in the machine, and basic competencies in CNC programming. Prerequisites: EGT 152.

EGT 265 - CAD/CAM Applications
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course includes applications using CAD/CAM routines. Prerequisites: EGT 165 or approval needed by the Department Head, Program Director, or Coordinator of Instructional Activities.

ENG 165 - Professional Communication
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course develops practical written and oral communication skills. Prerequisites: Satisfactory placement scores in both reading and writing. Note: This course cannot be used for an AA or AS degree.

MAT 170 - Algebra, Geometry and Trigonometry I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics: elementary algebra, geometry, trigonometry and applications. Prerequisites: Satisfactory math placement scores, or MAT 032 with a grade of C or higher.

MIT 105 - Machine Tool Math Applications
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of shop math relevant to the machine tool trade.

MIT 121 - Machine Tool Theory I
Class Hours: 3 Lab Hours: 6 Credit Hours: 3
This course covers the principles involved in the production of precision metal parts. Co-requisite: MIT 122.

MIT 122 - Machine Tool Practice I
Class Hours: 1 Lab Hours: 9 Credit Hours: 4
This course covers practical experiences using the principles in Machine Tool Theory I. Co-requisite: MIT 121.

MIT 124 - Machine Tool Practice II
Class Hours: 1 Lab Hours: 9 Credit Hours: 4
This course covers the practical application of the principles in Machine Tool Theory II. Prerequisites: MIT 122.

MIT 141 - Metals and Heat Treatment
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of the properties, characteristics, and heat treatment procedures of metals.

MIT 212 - Tool Design
Class Hours: 2 Lab Hours: 6 Credit Hours: 4
This course is a study of the development, material selection, manufacturing and machining procedures necessary in the production of tools and tooling. Prerequisites: MIT 124.

MIT 243 - Advanced Dimensional Metrology for Machinists
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of higher levels of measurement, measuring instruments, and measuring techniques. The course consists of a theoretical and practical study incorporating the metric system, geometric dimensioning/tolerancing, sine bars/plates for compound angles and more.

MIT 251 - CNC Operations
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course is a study of CNC machine controls, setting tools, and machine limits, and capabilities.

MIT 252 - CNC Setup and Operations
Class Hours: 2 Lab Hours: 6 Credit Hours: 4
This course covers CNC setup and operations. Co-requisite: MIT 251 or approval needed by the Department Head, Program Director, or Coordinator of Instructional Activities.

MIT 253 - CNC Programming and Operations
Class Hours: 1 Lab Hours: 6 Credit Hours: 3
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. Prerequisites: MIT 252 or approval needed by the Department Head, Program Director, or Coordinator of Instructional Activities.

MIT 254 - CNC Programming I
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course is a study of CNC programming, including machine language and computer-assisted programming. Prerequisites: MIT 253 or approval needed by the Department Head, Program Director, or Coordinator of Instructional Activities.

MIT 258 - Machine Tool Cam
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course is a study of computer-aided manufacturing graphics systems needed to create CNC programs. Prerequisites: EGT 265 or approval needed by the Department Head, Program Director, or Coordinator of Instructional Activities.

MIT 261 - Advanced Multi-Axis Programming and Operations II
Class Hours: 1 Lab Hours: 9 Credit Hours: 4
This course is a study of advanced CNC multi-axis machine programming, advanced contouring, and simultaneous multi-axis machining of 3D parts. Prerequisites: EGT 265.
Prior to 12th grade GET classes, students may receive TAP credit for up to 3 of the following: EGT 102, EGR 175, EET 145, EGR 130, with successful completion of the validation process.

12th Grade:

FALL
- EGR 125

SPRING
- EET 155

FALL
- MAT 170
- ENG 165
- EET 131
- MET 224
- EGR 175

SUMMER
- AMT 102
- PHY 111

SPRING
- EGR 194
- EGR 275
- PSY 120
- HSS 105

GENERAL ENGINEERING ASSOCIATE IN APPLIED SCIENCE DEGREE

- 2+2 Agreement with USC Upstate

ENGINEERING TECHNOLOGY MANAGEMENT Bachelor of Science Degree

Graduate from High School with up to 17 Hours of College Credit

- Take your dual enrollment classes at TCTC Pendleton Campus alongside college students.
- Build a competitive and marketable resume for engineering technology work in a variety of settings, including advanced manufacturing and industry.
- Earn up to 17 hours of college credit that you can use toward an Associate in Applied Science Degree in General Engineering Technology.
- Continue studies at Tri-County and have the opportunity to qualify for a Technical Scholars Program with a local company where you’ll receive valuable work experience, earn a paycheck, and receive tuition scholarships. (Most Technical Scholars are hired into full-time positions upon completion of the Associate in Applied Science Degree.)

TRI-COUNTY TECHNICAL COLLEGE CONTACT:
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REvised 10/2019
COURSE DESCRIPTIONS: GENERAL ENGINEERING TECHNOLOGY

General Engineering Technology teaches students how computers communicate with machines. Students learn how to program and troubleshoot computers, robots, and automated equipment.

AMT 102 - Computer-Controlled Machinery
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course covers the fundamentals of robot geometry, controls mechanisms, sensors, programming, installation, safety and maintenance, and other computer-controlled systems.

AMT 103 - Sensors
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course covers the theory of operation of various processes and discrete sensors used in modern industrial plants plus the techniques of interfacing these sensors with controllers (i.e., robot, work cell, programmable and process controls).

EET 113 - Electrical Circuits I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of direct and alternating currents, 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 131 - Active Devices
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of number systems, basic logic gates, registers. Circuits are modeled, constructed, and tested.
Prerequisites: EET 113.

EET 145 - Digital Circuits
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
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 175 - Introduction to Photonics
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This introductory course focuses on the technology of generating and harnessing light and other forms of radiant energy whose quantum unit is the photon.

EET 212 - Industrial Robotics
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course is a study of the systems design, modelling and simulation, signals and control systems, AI, sensor integration, vision systems, robot programming, and principles of mechatronics.

EET 235 - Programmable Controllers
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course is a study of relay logic, ladder diagrams, theory of operation, and applications. Loading ladder diagrams, debugging, and troubleshooting techniques are applied to programmable controllers.
Prerequisites: Permission of Department Head, Program Director, or Coordinator of Instructional Activities.

EET 274 - Selected Topics in Electrical/Electronics Engineering Technology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of current topics related to electrical/electronics engineering technology. Technical aspects of practical applications are discussed.
Prerequisites: Permission of Department Head, Program Director, or Coordinator of Instructional Activities.

EGR 130 - Engineering Technology Applications and Programming
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course covers the development and use of computer programs to solve engineering technology problems.

EGR 175 - Manufacturing Processes
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course includes the processes, alternatives, and applications in the manufacturing environment.

EGR 184 - Problem Based Integrated Technology I
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This problem-based course focuses on the introduction of workplace skills such as problem solving, teamwork, computers, and communications and on applications of mathematics and science competencies. Various applications software, including CAD, will be utilized in the course.

EGR 194 - Statics and Strength of Materials
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
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.
Prerequisites: MAT 170 and PHY 101.

EGR 275 - Introduction to Engineering/Computer Graphics
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course is a study of basic graphical concepts needed for engineering applications. These graphical concepts are presented through modeling and animation software.

EGT 152 - Fundamentals of CAD
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course includes a related series of problems and
12th Grade:

FALL
- ACR 101
- ACR 105
- ACR 131
- ACR 131
- ACR 131

SUMMER
- ACR 201
- ACR 250
- ACR 250

SPRING
- ACR 122
- ACR 160
- ENG 165
- PSY 120

High School Graduation with 11 Hours College Credit

Graduate from High School with 11 Hours of College Credit

- Take your dual enrollment classes at the TCTC Pendleton Campus alongside college students.
- Build a competitive and marketable resume for working on heating and air systems in a variety of settings including homes, businesses, and industries.
- Qualify for positions in a high-demand field expected to increase by 9% over the next 9 years.
COURSE DESCRIPTIONS: HEATING, VENTILATION, & AIR CONDITIONING TECHNOLOGY

The HVAC program prepares students for careers as heating, cooling, ventilation, and refrigeration technicians and installers in residential, commercial, and industrial sectors. Students learn the fundamentals of heating and air systems from building and installing systems to repairing, maintaining and operating systems.

ACR 101 - Fundamentals of Refrigeration Systems
Class Hours: 3 Lab Hours: 6 Credit Hours: 5
The course covers the refrigeration cycle, refrigerant, the pressure/temperature relationship, and system components.

ACR 104 - Print Reading for HVAC
Class Hours: 0 Lab Hours: 3 Credit Hours: 1
This course covers reading and interpreting prints used in HVAC installation and maintenance.

ACR 105 - Tools and Service Techniques I
Class Hours: 0 Lab Hours: 3 Credit Hours: 1
This course is an introduction to basic uses of tools and service equipment used in installation and repair of HVAC equipment.

ACR 106 - Basic Electricity for HVAC/R
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course includes a basic study of electricity, including Ohm's Law and series and parallel circuits as they relate to heating, ventilating, air conditioning and/or refrigeration systems.

ACR 110 - Heating Fundamentals
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of basic oil, gas, and electric heat, their components and operations. Prerequisites: ACR 106.

ACR 111 - Gas Heating Principles
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course is a study of residential and commercial gas burners and their components.

ACR 122 - Principles of Air Conditioning
Class Hours: 3 Lab Hours: 6 Credit Hours: 5
This course is a study of the air cycle, psychrometrics, load estimating and equipment selection.

ACR 131 - Commercial Refrigeration
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of maintenance and repair of commercial refrigeration systems.

ACR 140 - Automatic Controls
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course is a study of troubleshooting, repair and maintenance of a variety of pressure and temperature sensitive automatic controls.

ACR 160 - Service Customer Relations
Class Hours: 3 Lab Hours: 3 Credit Hours: 3
This course covers how to deal with different types of customers, selling techniques, and correct record keeping.

ACR 175 - EPA 608 Certification Preparation
Class Hours: 1 Lab Hours: 0 Credit Hours: 1
This course covers EPA guidelines and procedures required by law for refrigerant recovery and recycling during the installation, service, and repair of all HVAC and refrigeration systems. A comprehensive review of essential material necessary to take the EPA 608 exam will be included. Prerequisites: Approval needed by the Department Head, Program Coordinator, or Coordinator of Instructional Activities.

ACR 200 - Troubleshooting and Maintenance
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course is a study of troubleshooting and maintenance of air conditioning equipment.

ACR 201 - Troubleshooting and Maintenance of Air Conditioning Equipment
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course is a study of troubleshooting and maintenance of air conditioning equipment. Prerequisites: ACR 101, ACR 106.

ACR 210 - Heat Pumps
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of heat and operational principles of the heat pump. Prerequisites: ACR 101, ACR 106.

ACR 221 - Residential Load Calculations
Class Hours: 2 Lab Hours: 0 Credit Hours: 2
This course is a study of heat losses gains in residential structures. Prerequisites: ACR 101, ACR 122.

ACR 224 - Codes and Ordinances
Class Hours: 2 Lab Hours: 0 Credit Hours: 2
This course covers instruction on how to reference appropriate building codes and ordinances where they apply to installation of heating and air conditioning equipment. Prerequisites: ACR 101.

ACR 225 – Industrial Air Conditioning
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course is a study of compressors, motors, drives, controls heat exchangers, and other components involved in the operation and maintenance of industrial air conditioning equipment.

ACR 250 – Duct Fabrication
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course covers the design, fabrication, and installation of air duct systems.

ACR 251 - SCWE in HVAC
Class Hours: 0 Lab Hours: 12 Credit Hours: 4
This course includes supervised work experience at an approved work site in accordance with specific documented requirements.

ENG 165 - Professional Communication
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course develops practical written and oral communication skills. Prerequisites: Satisfactory COMPASS placement scores in both reading and writing.

HSS 105 - Technology and Culture
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course provides a study of the impact of technological change on cultural values, society, and the individual. Prerequisites: ENG 101, ENG 155, or ENG 165.

MAT 170 - Algebra, Geometry and Trigonometry I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics: elementary algebra, geometry, trigonometry and applications. Prerequisites: Satisfactory math placement scores, or MAT 032 with a grade of C or higher.

PSY 120 - Organizational Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of basic psychological principles of supervision and organizational dynamics. Emphasis is placed on people skills and general human relation techniques in the workplace. Note: This course will not satisfy any Associate of Arts or Associate of Science requirements.
High School Program Courses

Prior to TCTC Dual Enrollment Courses, students may receive TAP credit for one or more of the following courses: EEM 117, EEM 118, EEM 173, EEM 230, IMT 141, IMT 161, with successful completion of high school courses and the validation process.

Industrial Electronics Technology

- EEM 118
- EEM 221
- EEM 230*
- EMT 251
- EEM 173*
- EEM 251
- ENG 165
- IMT 141
- MAT 170

- EEM 252
- EEM 275
- Humanities Requirement
- IDS 106
- QAT 101

- EEM 131
- General Education Elective
- PYS 120

SUMMER

FALL

SPRING

SUMMER

12th Grade: Dual Enrollment Courses:

High School Graduation + Technical Operations I Certificate

Median $52,094 Annually

Bachelor of Applied Science
2+2 Agreements

ADVANCED MANUFACTURING
USC Upstate

ADVANCED MANUFACTURING
TECHNOLOGY
Greenville Technical College

MECHATRONICS TECHNOLOGY
Associate In Applied Science Degree

TRI-COUNTY TECHNICAL COLLEGE CONTACT:
Amanda Blanton
ablanton@tctc.edu

Graduate from High School with a Technical Operations I Certificate and up to 26 Hours of College Credit

- Build a competitive and marketable resume for entry level careers in manufacturing following high school or continue at Tri-County to earn an Associate in Applied Science Degree in either Industrial Electronics or Mechatronics.
- After high school, graduate with an Associate in Applied Science Degree in 3 additional semesters.
- At Tri-County, have the opportunity to qualify for a Technical Scholars Program with a local company where you’ll receive valuable work experience, earn a paycheck, and receive tuition scholarships. (Most Technical Scholars are hired into full time positions upon completion of the Associate Degree.)
AMT 105 - Robotics and Automated Control I
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course includes assembling, testing, and repairing equipment used in automation. Concentration is on connecting, testing, and evaluating automated controls and systems.
Prerequisites: IMT 131, IMT 141 and IMT 233.

EEM 117 - AC/DC Circuits I
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of direct and alternating theory, Ohm's Law, series, parallel, and combination circuits. Circuits are constructed and tested.

EEM 118 - AC/DC Circuits II
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
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.
Prerequisites: EEM 117.

EEM 131 - Solid-State Devices
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of semiconductor theory and common solid-state devices. Circuits are constructed and tested.
Prerequisites: EEM 118 or equivalent.

EEM 161 - Industrial Instruments
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of basic industrial instruments with particular emphasis on the devices utilized to control modern manufacturing processes.

EEM 173 - Electrical Installation I
Class Hours: 1 Lab Hours: 3 Credit Hours: 2
This course is an introduction to the study of electrical wiring techniques commonly used in commercial, industrial and residential applications. Emphasis will be placed on compliance with the National Electrical Code.

EEM 217 - AC/DC Machines with Electrical Codes
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of AC and DC machines to include operational theory, applications, and construction. Relevant sections of the National Electrical Code will also be covered.

EEM 221 - DC/AC Drives
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course is a study of logic, mathematics, components and circuits utilized in digital equipment.
Prerequisites: EIM 141.

EEM 230 - Digital Electronics
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is a study of logic, mathematics, components and circuits utilized in digital equipment.

EEM 251 - Programmable Controllers
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
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.
Prerequisites: EEM 230 or IMT 141.

EEM 252 - Programmable Controllers Applications
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
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.
Prerequisites: EEM 251.

EEM 275 - Technical Troubleshooting
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course consists of a systematic approach to troubleshooting. Techniques used to analyze proper circuit operation and malfunctions are studied.
Prerequisites: EEM 251.

ELT 251 - Special Topics in Electronics
Class Hours: 2 Lab Hours: 0 Credit Hours: 2
This course covers a special phase or area of electronics.
Prerequisites: ELT 118.

ENG 165 - Professional Communication
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course develops practical written and oral communication skills.
Prerequisites: Satisfactory ACCUPLACER placement scores in both reading and writing.

HSS 105 - Technology and Culture
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course provides a study of the impact of technological change on cultural values, society, and the individual.

IDS 106 - Employment Development Skills
Class Hours: 4 Lab Hours: 0 Credit Hours: 4
This course offers the student a simulated work experience in a lab setting. Students will perform mock interviews and learn soft skills required for the job market.

IMT 112 - Hand Tool Operations
Class Hours: 2 Lab Hours: 3 Credit Hours: 3
This course covers the use of hand tools and their applications in industrial and service areas.

IMT 131 - Hydraulics and Pneumatics
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course covers the basic technology and principles of hydraulics and pneumatics.

IMT 141 - Electrical Control Devices
Class Hours: 3 Lab Hours: 6 Credit Hours: 5
This course covers principals and applications of electrical motor, control circuits, and industrial equipment.
Prerequisites: EEM 117 with a grade of C or higher.

IMT 161 - Mechanical Power Operations
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course covers mechanical transmission devices, including the procedures for installation, removal, and maintenance.

IMT 202 - Electrical Troubleshooting
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course covers diagnosing a mechanical problem using prints and electrical troubleshooting techniques.
Prerequisite: IMT 131, IMT 161, and IMT 233.

IMT 224 - Basic Electronics Theory
Class Hours: 3 Lab Hours: 3 Credit Hours: 4
This course is the study of basic electronic theory. Students will learn to identify electronic system components and interpret electronic schematic diagrams.
Prerequisites: EEM 118.

IMT 230 - Reliability Centered Maintenance
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is the study of methods of predictive and preventive maintenance. Vibration analysis, infrared photography and ultrasonics will be covered.

IDS 233 – Programmable Logic Controllers
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This is the study of programmable logic controllers. Students will learn how to state the characteristics of different types of memory and count and convert between number systems.
Prerequisites: IMT 141.

MAT 170 - Algebra, Geometry and Trigonometry I
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course includes the following topics: elementary algebra, geometry, trigonometry and applications.
Prerequisites: Satisfactory math placement scores, or MAT 032 with a grade of C or higher.

PSY 120 - Organizational Psychology
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
This course is a study of basic psychological principles of supervision and organizational dynamics. Emphasis is placed on people skills and general human relation techniques in the workplace.
Note: This course will not satisfy any Associate of Arts or Associate of Science requirements.

QAT 101 - Introduction to Quality Assurance
Class Hours: 3 Lab Hours: 0 Credit Hours: 3
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.
12th Grade:

High School Graduation + SMAW Structural Welding Certificate

WELDING TECHNOLOGY ASSOCIATE IN APPLIED SCIENCE DEGREE

Graduate from High School with 8 Hours and A SMAW (Shielded Metal Arc Welding) Certificate

- Take your dual enrollment classes at the TCTC Industrial Technology Center in Sandy Springs alongside college students.
- Have the opportunity to earn nationally recognized AWS (American Welding Society) certifications upon passing Practical Weld Tests.
- Build a competitive and marketable resume for a variety of employment opportunities, primarily in construction, metal working, and manufacturing.
- After high school graduation, seamlessly transition into the Associate in Applied Science Degree Welding program at the Industrial Technology Center.
- Qualify for positions in a high-demand field in which the number of jobs is expected to increase over 7% in the next 9 years.

TriCounty Technical College

TRI-COUNTY TECHNICAL COLLEGE CONTACT:
Amanda Blanton • ablanton@tctc.edu

Local Annual Median $37,716
High $52,159

REVISED 07/2019
**COURSE DESCRIPTIONS: WELDING TECHNOLOGY**

The Welding Technology program prepares students for a variety of employment opportunities in construction, manufacturing, and metal working. The Welding Technology program offers an associate degree option and certificate options. Credit for courses in the certificates can be applied toward the associate degree.

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<th>Course Code</th>
<th>Course Title</th>
<th>Class Hours</th>
<th>Lab Hours</th>
<th>Credit Hours</th>
<th>Description</th>
<th>Prerequisites</th>
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<tr>
<td>EGT 103</td>
<td>Print Reading</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>This course is an introduction to basic print reading and interpretation, including layout, projection, and dimensioning.</td>
<td></td>
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<tr>
<td>EGT 114</td>
<td>Welding Print Basics</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>This course covers the fundamentals of print reading for welding applications.</td>
<td>Prerequisites: EGT 103</td>
</tr>
<tr>
<td>ENG 165</td>
<td>Professional Communication</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>This course develops practical written and oral communication skills.</td>
<td>Prerequisites: Satisfactory COMPASS placement scores in both reading and writing. Note: This course cannot be used for an AA or AS degree.</td>
</tr>
<tr>
<td>MAT 170</td>
<td>Algebra, Geometry and Trigonometry I</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>This course includes the following topics: elementary algebra, geometry, trigonometry and applications. Prerequisites: Satisfactory math placement scores, or MAT 032 with a grade of C or higher. Note: This course cannot be used for an AA or AS degree.</td>
<td></td>
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<tr>
<td>WLD 109</td>
<td>Gas Metal Arc Welding II</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>This course covers all position welding and advanced techniques for welding ferrous and nonferrous metals. Prerequisites: WLD 111.</td>
<td></td>
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<tr>
<td>WLD 111</td>
<td>Arc Welding I</td>
<td>1</td>
<td>9</td>
<td>4</td>
<td>This course covers the safety, equipment, and skills used in the shielded metal arc welding process. Fillet welds are made to visual criteria in several positions. Co-requisite: WLD 115.</td>
<td></td>
</tr>
<tr>
<td>WLD 113</td>
<td>Arc Welding II</td>
<td>1</td>
<td>9</td>
<td>4</td>
<td>This course is a study of arc welding of ferrous and/or nonferrous metals.</td>
<td>Prerequisites: WLD 111</td>
</tr>
<tr>
<td>WLD 115</td>
<td>Arc Welding III</td>
<td>1</td>
<td>9</td>
<td>4</td>
<td>This course covers the techniques used in preparation for structural plate testing according to appropriate standards. Co-requisite: WLD 111.</td>
<td></td>
</tr>
<tr>
<td>WLD 117</td>
<td>Inert Gas Welding Ferrous</td>
<td>1</td>
<td>9</td>
<td>4</td>
<td>This course covers setup and adjustment of equipment and fundamental techniques for welding ferrous metals. Prerequisites: WLD 111.</td>
<td></td>
</tr>
<tr>
<td>WLD 154</td>
<td>Pipe Fitting and Welding</td>
<td>1</td>
<td>9</td>
<td>4</td>
<td>This is a basic course in fitting and welding pipe joints, either ferrous or non-ferrous, using standard processes. Prerequisites: WLD 132.</td>
<td></td>
</tr>
<tr>
<td>WLD 160</td>
<td>Fabrication Welding</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>This course covers the layout and fabrication procedures as they pertain to sheet metal and structural steel shapes. The course also includes shop safety and hand and power tools. Prerequisites: WLD 109, WLD 111, and WLD 132.</td>
<td></td>
</tr>
<tr>
<td>WLD 204</td>
<td>Metallurgy</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>This course covers the characteristics of ferrous and non-ferrous metals.</td>
<td>Prerequisites: WLD 111</td>
</tr>
<tr>
<td>WLD 208</td>
<td>Advanced Pipe Welding</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>This course is a study of advanced pipe welding. It also covers the processes to fit and weld ferrous and non-ferrous metals. Prerequisites: WLD 154.</td>
<td></td>
</tr>
<tr>
<td>WLD 225</td>
<td>Arc Welding Pipe I</td>
<td>1</td>
<td>9</td>
<td>4</td>
<td>This course covers the techniques used in shielded metal arc welding of groove welds on pipe.</td>
<td></td>
</tr>
<tr>
<td>WLD 235</td>
<td>Robotic Welding I</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>This course covers basic theory and practice for robotic welding. Prerequisites: WLD 109.</td>
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*(See pages 60-64 and 66 for the courses that are approved for dual credit.)*
CAMPUS CONTACT INFORMATION

Anderson Five Charter School
1225 South McDuffie St.
Anderson, SC 29624
864.260.5538
www.anderson5.net/domain/4026

Anderson Institute of Technology (AIT)
315 Pearman Dairy Rd.
Anderson, SC 29625
864.222.4120
www.anderson5.net/ait

Southwood Academy of the Arts
1110 Southwood St.
Anderson, SC 29624
864.260.5205
www.anderson5.net/southwood

T.L. Hanna High School
2600 Highway 81 North
Anderson, SC 29621
864.260.5110
www.anderson5.net/tlhanna

Westside High School
806 Pearman Dairy Rd.
Anderson, SC 29625
864.260.5230
www.anderson5.net/westside