HIGH SCHOOL COURSE DESCRIPTION GUIDE
2019 - 2020
Board Members

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Business Pathway

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Finance Pathway

Government and Public Administration Cluster

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Biomedical Sciences Pathway

Hospitality and Tourism Cluster

Culinary Arts Pathway

Human Services Cluster

Barbering Pathway

Human Services Cluster

Esthetics and Spa Management Pathway

Fashion Pathway

Food, Wellness, and Dietetics

Interior Design and Real Estate Pathway

Information Technology Cluster

Cyber Security Pathway

Entertainment Technology Pathway

Information Technology

Project Lead the Way Computer Science Pathway

Manufacturing Cluster
Dear Parents/Guardians and Students,

The 2019-2020 HCS High School Course Description Guide has been revised and updated to assist you with the course selection process for the upcoming school year. The purpose of this guide is to provide you with the information and resources you need to choose high school courses that will lead to college or career readiness. We encourage you to review course descriptions and prerequisites to make the best and most informed decision you can when choosing courses.

For quick reference and easy use of the digital Course Description Guide, you can click on a section in the Table of Contents and it will take you directly to that section. The guide begins with Alabama High School Graduation Requirements. It is important to make note of these requirements as they will serve as a guide when selecting courses in required core subject areas, required electives and additional electives required for graduation. Other information regarding grade classification, distance learning, dual enrollment, academic eligibility for extracurricular activities is also included for your reference.

Your grade level school counselor will serve as your point of contact for all things related to course selection and registration. Counselors will be provided with the information, materials, and resources to effectively assist students with course selection. Please do not hesitate to reach out to them if you need help or have questions.

We recognize the course selection and registration process is important for students and their families and for our schools. We offer assistance in many forms: classroom guidance activities with students, parent/guardian meetings, printed and digital resources, and school registration events. We look forward to working with you as we prepare for the 2019 - 2020 school year.

Sincerely,

Dr. Tammy Summerville
Deputy Superintendent
Curriculum and Instruction

Sincerely,

Dr. Cathy McNeal
Chief of Strategy and Innovation

Sincerely,

Cedric Delbridge
Coordinator
Counseling Service
Alabama High School Graduation Requirements – Clarified May 2018

From Alabama Administrative Code 290-3-1-02(8) and (8)(a): “Effective for students in the ninth grade in the 2013-2014 school year, all students shall earn the required credits for the Alabama High School Diploma. A local board of education may establish requirements for receipt of diplomas and endorsements, but any diploma or endorsement shall include the requirements of the Alabama High School Diploma. The Alabama courses of study shall be followed in determining minimum required content in each discipline.”

<table>
<thead>
<tr>
<th>Course Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENGLISH LANGUAGE ARTS – TOTAL OF FOUR CREDITS</strong></td>
</tr>
<tr>
<td>Four credits to include:</td>
</tr>
<tr>
<td>English 9</td>
</tr>
<tr>
<td>English 10</td>
</tr>
<tr>
<td>English 11</td>
</tr>
<tr>
<td>English 12</td>
</tr>
<tr>
<td>English Language Arts credit eligible options may include: Advanced Placement / International Baccalaureate courses / SDE approved courses.</td>
</tr>
<tr>
<td><strong>MATHEMATICS – TOTAL OF FOUR CREDITS</strong></td>
</tr>
<tr>
<td>Three credits to include:</td>
</tr>
<tr>
<td>Algebra I or its equivalent/substitute</td>
</tr>
<tr>
<td>Geometry or its equivalent/substitute</td>
</tr>
<tr>
<td>Algebra II w/ Trigonometry or Algebra II or its equivalent/substitute</td>
</tr>
<tr>
<td>One credit from:</td>
</tr>
<tr>
<td>Alabama Course of Study for Mathematics or equivalent/substitute courses from Career and Technical Education/Advanced Placement/International Baccalaureate/postsecondary courses/SDE approved courses</td>
</tr>
<tr>
<td><strong>SCIENCE – TOTAL OF FOUR CREDITS</strong></td>
</tr>
<tr>
<td>Two credits to include:</td>
</tr>
<tr>
<td>Biology</td>
</tr>
<tr>
<td>A physical science (Chemistry, Physics, Physical Science)</td>
</tr>
<tr>
<td>Two credits from:</td>
</tr>
<tr>
<td>Alabama Course of Study for Science or equivalent/substitute courses from Career and Technical Education/Advanced Placement/International Baccalaureate/postsecondary courses/SDE approved courses</td>
</tr>
<tr>
<td><strong>SOCIAL STUDIES – TOTAL OF FOUR CREDITS</strong></td>
</tr>
<tr>
<td>World History</td>
</tr>
<tr>
<td>United States History I</td>
</tr>
<tr>
<td>United States History II</td>
</tr>
<tr>
<td>Government</td>
</tr>
<tr>
<td>Economics</td>
</tr>
<tr>
<td>Social Studies credit eligible options may include: Advanced Placement / International Baccalaureate courses / SDE approved courses.</td>
</tr>
<tr>
<td><strong>Civics Test Requirement</strong> - Students are required to pass the Civics Test in the United States Government class effective the 2018-2019 school year.</td>
</tr>
<tr>
<td><strong>Physical Education</strong> - Lifelong Individual Fitness Education (LIFE) or JROTC credit</td>
</tr>
<tr>
<td><strong>Health Education</strong></td>
</tr>
<tr>
<td><strong>Career Preparedness</strong></td>
</tr>
<tr>
<td><strong>Career and Technical Education and/or Foreign Language and/or Arts Education</strong></td>
</tr>
<tr>
<td><strong>Electives</strong></td>
</tr>
<tr>
<td>TOTAL CREDITS</td>
</tr>
</tbody>
</table>
Grade Classification
A student progresses toward graduation by earning Carnegie units in the core and elective subjects. For student, parent, and administration convenience, grade level designations of 9th, 10th, 11th, and 12th are used for homeroom placement and to indicate progress towards completion of graduation requirements.

Graduation Requirement – 24 Credits

A 10th grader must have a minimum of 5 units
An 11th grader must have a minimum of 12 units
A 12th grader must have a minimum of 17 units
To graduate 24 units

Transfer of Credits for Non-Accredited Schools

Please refer to the Alabama Code 290-3-1-.02(7)(k) for information regarding transfers of credits from non-accredited schools. Click here to view Alabama Code 290-3-1-.02(7)(k).

Credit Recovery

Students who did not receive credit in a course because they did not master course content or skills may apply for credit recovery. Credit recovery is based on making up deficiencies rather than on repeating the entire course. To be eligible for credit recovery, students must have achieved a baseline score of 40 or above (on a 100-point scale). The final grade in credit recovery may not exceed 70 on a 100-point scale. Students with a baseline score below 40 (on a 100-point scale) are not eligible for credit recovery and must repeat the entire course. Credit recovery may be delivered by a highly-qualified teacher or through instructional technology under the supervision of Huntsville City School staff.

Note: The NCAA Eligibility Center does NOT accept credits earned through Credit Recovery. Athletes seeking eligibility through the NCAA Eligibility Center MUST repeat the entire course. For more information, please speak to your athletic director or guidance counselor.

Credit Advancement

Huntsville City Schools offers students who exhibit proficiency beyond the level required for all students for an individual course the opportunity to pursue Credit Advancement as an alternative to the traditional Carnegie Unit approach to course completion. For a student to be eligible for Credit Advancement he or she must:

1. Be recommended by a current or former teacher of the subject/course being considered for Credit Advancement.
2. Have criterion-referenced or norm-referenced test scores that support an above grade-level proficiency of content in the subject/course being considered for Credit Advancement.
3. Complete a Request for Credit Advancement form, signed by the parent or guardian, the high school counselor, and high school principal.
Credit Advancement may occur in the following two ways:

- The student may request to take an End-of-Course Assessment covering all of the standards of the course before formal enrollment in the course.
  - The state End-of-Course Assessment must be given before end of each semester.
  - A mastery score of 80 or above must be obtained to receive credit for the course through Credit Advancement, and this score will be included in the student’s overall Grade Point Average.
  - If a student (or parent/guardian) does not want to accept (rejects) the student’s mastery score of 80 or above, the student may enroll in the course in the traditional classroom.

- The student may show Proficiency during a course and request permission to work ahead through independent and teacher-supported assignments or through online opportunities.
  - At a point jointly agreed upon by the student and teacher of record, the student will be administered the End-of-Course Assessment, and if he or she obtains a proficiency score of 80 or above, the student may move forward into the next course in the sequence of that content area.
  - This situation would offer an opportunity for the student to pursue online options or other developed options for individualized independent study.
  - The student will be allowed to take each end of course Assessment for Credit Advancement one time.

- The National Collegiate Athletic Association (NCAA) does not recognize Credit Advancement for course credit.
Distance Learning Through ACCESS

ACCESS Distance Learning, an education initiative of the Alabama Department of Education, provides opportunities during the school day for Alabama high school students to engage in courses to which they may not otherwise have access. The web and interactive video-based courses are aligned with the Alabama Courses of Study, and Carnegie units (credits) earned through ACCESS are accepted by the Huntsville City Schools. There are no costs for ACCESS courses. Interested students should talk with their school counselors.

Dual Enrollment for Academic and Elective Advancement

The Dual Enrollment program for Huntsville City Schools allows students to receive both high school and college credit for certain academic or career technical education courses. Eligible courses can be taken through an Alabama Community College System (ACCS) institution while enrolled in high school for the purpose of earning credits for a high school diploma and/or a postsecondary degree.

All Huntsville City Schools’ High Schools offer Dual Enrollment to eligible students. Many of the college programs or courses are aligned with Huntsville City career academies, magnet programs, and academic courses.

**Students must meet the following requirements to be eligible to participate in Academic Dual Enrollment.**

1. Responsible for all college tuition and fee costs as required by the postsecondary institution.
2. Have and maintain a “2.5” overall GPA and meet the admission requirements of the participating postsecondary institution. Please note: Some programs may require a higher GPA.
3. Successfully completed 9th and 10th Grade.
4. Successfully pass three semester credit hours at the postsecondary level in the same or related subjects. The Principal must approve credit for courses before registration.

**Additional Academic Dual Enrollment Information:**

- Courses taken by dual enrollment shall be at the postsecondary/college level. Postsecondary/college level remedial courses do not meet state requirements.
- A student successfully passing a postsecondary course will receive a weighted grade (additional 10 points on a numerical scale or 1.0 on a 4.0 scale) which will be recorded on the student’s report card and high school official transcript and included in the GPA calculation.
- With the Superintendent’s approval, students have the potential to earn up to 6 dual enrollment credit hours per year.
Students must meet the following requirements to be eligible to participate in Career Technical Dual Enrollment.

Note: Career technical dual enrollment participates in a state-wide grant which typically covers course expenses. The postsecondary institution will make determination of available funds and limitations.

1. A student must have an “2.5” overall GPA and meet the admission requirements of the participating postsecondary institution.
2. Must successfully pass three semester credit hours at the postsecondary level in the same or related subjects. The Principal must approve credit for courses before registration.

Additional Career Technical Dual Enrollment Information:
- Career Technical Dual Enrollment opportunities generally include, but are not limited to, the following programs:
  - Accounting Technology
  - Advanced Manufacturing
  - Heating and Air Conditioning
  - Automotive Technology
  - Computer Information Systems
  - Culinary Arts
  - Drafting and Design Technology
  - Electrical Engineering Technology
  - Medical Assisting Technology
  - Machine Tool Technology
  - Nursing Assistant
  - Salon Management
  - Welding Technology
  - Aerospace Welding
  - Emergency Medical Technician

Students are not limited to the number of Career Technical courses desired if it does not result in a schedule conflict, the student maintains GPA requirements, and with the postsecondary institution’s approval.

Early start is for students who wish to begin taking college courses before they graduate from high school. Early start is between the student, parent, and the college. For students participating in the early start program, the credits earned from the college will ONLY count towards a postsecondary degree.

General Information:
- For students interested in Dual Enrollment and Early Start an application must be obtained from the school counselor and completed.
- Transportation and/or any other needs will be determined on a case by case basis.

Early Release

To be approved for early release, students must have HCS approval to participate in Dual Enrollment, Early Start College Enrollment, HCS Work-Based Learning, or HCS approved apprenticeship programs. Students are only released for Dual Enrollment when the student is taking courses on the college campus. Dual Enrollment students taking courses at the local high school are not allowed early release.
Virtual School

Huntsville City Schools is proud to offer a virtual school experience for students in grades 9 - 12. Students may choose to continue in the traditional school program or consider a virtual school program. The virtual school curriculum features courses in mathematics, science, language arts, and social studies, as well as electives. In collaboration with the school counselor, virtual school students will have the opportunity to select a virtual pathway to meet his/her learning goals. Students desiring a virtual, non-traditional learning environment who are self-motivated with strong reading and writing skills and are willing to learn independently are encouraged to apply.

A student must meet the following requirements to be eligible to enroll as a full virtual student or a flex virtual student:

<table>
<thead>
<tr>
<th>Full Virtual Student</th>
<th>Flex Virtual Student</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> A student who completes all course work online in a remote location with face-to-face sessions only when requested by either the student or the teacher.</td>
<td><strong>Description:</strong> A high school junior or senior who chooses to complete one or two online courses while taking other courses at the high school.</td>
</tr>
<tr>
<td><strong>Grade Levels:</strong> 9 to 12</td>
<td><strong>Grade Levels:</strong> 11 and 12</td>
</tr>
<tr>
<td><strong>Eligibility:</strong></td>
<td><strong>Eligibility:</strong></td>
</tr>
<tr>
<td>• Student must be enrolled in Huntsville City Schools*</td>
<td>• Student must be enrolled in Huntsville City Schools*</td>
</tr>
<tr>
<td>• Students must agree to the Student Technology Acceptable Use Agreement</td>
<td>• Student must accept the Student Technology Acceptable Use Agreement</td>
</tr>
<tr>
<td>• Student must have access to the Internet at home</td>
<td>• Student must have a minimum overall grade point average of 2.5 or higher</td>
</tr>
<tr>
<td>• Students will take the same number of classes and electives required at the base school. The student’s schedule will mirror his/her schedule at the base school as closely as possible</td>
<td>• Student must maintain a minimum of 70% mastery in all courses</td>
</tr>
<tr>
<td>• Student must have a minimum overall grade point average of 2.5 for grades 9 to 12 or receive superintendent recommendation</td>
<td>• Principal/counselor approval</td>
</tr>
<tr>
<td>• Student and parent must attend all REQUIRED virtual school meetings as called by the Virtual School Director</td>
<td>• Virtual Course Offerings: English 11, English 12, US History 11 - 1877 to Present, Economics, Government, Sociology, and Psychology</td>
</tr>
<tr>
<td>• Student must maintain a minimum of 70% mastery in all courses.</td>
<td></td>
</tr>
<tr>
<td>• Student will provide his/her own transportation to the virtual school for requested tutoring, mid-term, and final exams</td>
<td></td>
</tr>
</tbody>
</table>

*Magnet and IB students may not participate in the full virtual program due to specific program requirements. Please see individual Magnet and IB schools for more details.
**Academic Eligibility for Extracurricular Activities/Athletics**

Voluntary extracurricular and co-curricular activities are defined as continuing activities available to students during and beyond the regular day. Students must be enrolled in Huntsville City Schools to be eligible to participate in extracurricular activities. Because New Century Technology High School does not offer an athletic program, New Century students are eligible to participate at their zoned home schools.

Academic eligibility for participation in sports will be governed by the rules of the Alabama High School Athletic Association (AHSAA). No grade requirement beyond those established by the AHSAA may be imposed for sports or cheerleading. Requirements beyond those established by the AHSAA, however, may be imposed for other school activities. Other school system rules, including conduct rules, apply to students participating in band, choral, drama, sports, cheerleading, and other extracurricular and co-curricular activities. *(Huntsville City Schools Policy Number 105-23)* Huntsville City Schools (each school) is a member of the Alabama High School Athletic Association. Rules set forth by AHSAA govern all eligibility and participation criteria. Rules pertaining to high school athletic eligibility may be found at the AHSAA website. [Click here to visit the AHSAA website.](#)
NCAA First Year Student Eligibility Standards Quick Reference

Students who hope to participate in college athletics should become familiar with the National Collegiate Athletic Association (NCAA) guidelines to be prepared for academic eligibility to participate in collegiate athletics. The eligibility standards required by the NCAA are affected by course selection and course grades throughout high school as well as scores on the ACT/SAT. Student, parents, and/or guardians are encouraged to download the “Guide for College-Bound Student-Athlete” available at the NCAA Eligibility Center. Click here to go to the NCAA website and download the guide.

KNOW THE RULES...

Core Courses
- NCAA Division I requires 16 core courses. See the charts on the following page.
- Beginning August 1, 2016, NCAA Division I requires 10 core courses to be completed prior to the seventh semester (seven of the 10 must be a combination of English, math or natural or physical science that meet the distribution requirements below). These 10 courses become “locked in” at the start of the seventh semester and cannot be retaken for grade improvement.
  - Beginning August 1, 2016, it will be possible for a Division I college-bound student-athlete to still receive athletics aid and the ability to practice with the team if he or she fails to meet the 10-course requirement, but he or she would not be able to compete.

Test Scores
- Division I uses a sliding scale to match test scores and core grade-point averages (GPA). The sliding scale for those requirements is shown on the following page.
- Division II requires a minimum SAT score of 820 or an ACT sum score of 68.
- The SAT score used for NCAA purposes includes only the critical reading and math sections. The writing section of the SAT is not used.
- The ACT score used for NCAA purposes is a sum of the following four sections: English, mathematics, reading, and science.
- When you register for the SAT or ACT, use the NCAA Eligibility Center code of 9999 to ensure all SAT and ACT scores are reported directly to the NCAA Eligibility Center from the testing agency. Test scores that appear on transcripts will not be used.

Grade Point Average
- Be sure to look at your high school’s list of NCAA Courses on the Eligibility Center’s website. For more information on GPA, click this link to go to the NCAA Eligibility Center. Only courses that appear on your school’s list of NCAA Courses will be used in the calculation of the core GPA. Use the list as a guide. Click here to look up a list of courses offered at your school.
- Division I students enrolling full time before August 1, 2016 should use Sliding Scale A to determine eligibility to receive athletics aid, practice, and competition during the first year.
- Division I GPA required to receive athletics aid and practice on or after August 1, 2016 is 2.000-2.299 (corresponding test-score requirements are listed on Sliding Scale B on page two of this sheet).
• Division I GPA required to be eligible for competition on or after August 1, 2016 is 2.300 (corresponding test-score requirements are listed on Sliding Scale B in the link listed below).

• The Division II core GPA requirement is a minimum of 2.000.

• Remember, the NCAA GPA is calculated using NCAA core courses only.

<table>
<thead>
<tr>
<th>Division I (16 Core Courses)</th>
<th>Division II (16 Core Courses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 4 years of English</td>
<td>• 3 years of English</td>
</tr>
<tr>
<td>• 3 years of mathematics (Algebra I or higher)</td>
<td>• 2 years of mathematics (Algebra I or higher)</td>
</tr>
<tr>
<td>• 2 years of natural/physical science (1 year of lab if offered by high school)</td>
<td>• 2 years of natural/physical science (1 year of lab if offered by high school)</td>
</tr>
<tr>
<td>• 1 year of additional English, mathematics, or natural/physical science</td>
<td>• 3 years of additional English, mathematics, or natural/physical science</td>
</tr>
<tr>
<td>• 2 years of social science</td>
<td>• 2 years of social science</td>
</tr>
<tr>
<td>• 4 years of additional courses (from any area above, foreign language, or comparative religion/philosophy)</td>
<td>• 4 years of additional courses (from any area above, foreign language, or comparative religion/philosophy)</td>
</tr>
</tbody>
</table>

Please click here to view the NCAA Division I Sliding Scales
Academic Programs

The Advanced Placement program provides high school students with the opportunity to complete college-level studies while they are enrolled in secondary schools. These challenging and thought-provoking courses often take more time, require more work, and go into greater depth than regular level courses. Students who enroll in Advanced Placement classes are required to take the AP exams at the end of the academic year to receive the extra GPA quality point.

In Huntsville, the Advanced Placement program is an integral part of the school system's instructional program and is valued for its contribution to academic excellence. Should a student wish to take an AP course not taught at the student’s high school of enrollment, the request to enroll in the course at another high school may be made with the student’s guidance counselor. Transportation to the other high school may be provided.

<table>
<thead>
<tr>
<th>AP Courses Offered in Huntsville City Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
</tr>
<tr>
<td>Biology</td>
</tr>
<tr>
<td>Calculus AB</td>
</tr>
<tr>
<td>Calculus BC</td>
</tr>
<tr>
<td>Chemistry</td>
</tr>
<tr>
<td>Computer Science A</td>
</tr>
<tr>
<td>Computer Science</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

AP exam fees are paid by the parent/guardian. There is no AP exam fee for students who are eligible for free and reduced lunch.

Grade Scale – If a student takes the corresponding AP test, the AP course grade will be weighted one point more than other courses for calculating the grade point average used to determine class rank. Honors courses are weighted 0.5 extra.

<table>
<thead>
<tr>
<th>Scale</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grading Scale</td>
<td>90 to 100</td>
<td>80 to 89</td>
<td>70 to 79</td>
<td>60 to 69</td>
<td>0 to 59</td>
</tr>
<tr>
<td>AP/IB Scale</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Honors Scale</td>
<td>4.5</td>
<td>3.5</td>
<td>2.5</td>
<td>1.5</td>
<td>0</td>
</tr>
<tr>
<td>Regular Scale</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
## Courses with Additional Grade Points

### 1.0 GPA Increase – Advanced Placement (AP) Courses

Students enrolled in Huntsville City Schools successfully completing the following courses and taking the corresponding College Board Advanced Placement test at the end of the academic year will receive an extra 10 points on a 100-point scale. Students meeting these criteria will also receive a 1.0 increase in Grade Point Average, GPA, for the course.

<table>
<thead>
<tr>
<th>Type</th>
<th>Subject</th>
<th>Course</th>
<th>Course Number</th>
<th>Numeric Grade Bonus Weight</th>
<th>GPA Bonus Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP</td>
<td>English</td>
<td>English, Language and Composition, AP</td>
<td>200016</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>AP</td>
<td>English</td>
<td>English, Literature and Composition, AP</td>
<td>200020</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>AP</td>
<td>Math</td>
<td>Calculus AB, AP</td>
<td>210020</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>AP</td>
<td>Math</td>
<td>Calculus BC, AP</td>
<td>210026</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>AP</td>
<td>Math</td>
<td>Statistics, AP</td>
<td>210027</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>AP</td>
<td>Science</td>
<td>Biology, AP</td>
<td>220014</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>AP</td>
<td>Science</td>
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1.0 GPA Increase – International Baccalaureate (IB) Courses

Students enrolled in Huntsville City Schools successfully completing the following International Baccalaureate courses will receive an extra 10 points on a 100-point scale and will also receive a 1.0 increase in Grade Point Average, GPA, for the course.

<table>
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<th>Type</th>
<th>Subject</th>
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<th>Course Number</th>
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### 1.0 Increase – Non-Advanced Placement Courses

Students enrolled in Huntsville City Schools successfully completing the following courses will receive an extra 10 points on a 100-point scale and will also receive a 1.0 increase in Grade Point Average, GPA, for the course.

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<td>Cyber Security</td>
<td>Foundations of Information Security</td>
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<td>Advanced Cyber Forensics</td>
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### 0.5 Increase – Honors Courses

Students enrolled in Huntsville City Schools successfully completing the following courses will receive an extra 5 points on a 100-point scale and will also receive a 0.5 increase in Grade Point Average, GPA, for the course.

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### 0.5 Increase – Non-Honors Courses

Students enrolled in Huntsville City Schools successfully completing the following courses will receive an extra 5 points on a 100-point scale and will also receive a 0.5 increase in Grade Point Average, GPA, for the course.

<table>
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<tr>
<th>Type</th>
<th>Subject</th>
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<th>Course Number</th>
<th>Numeric Grade Bonus</th>
<th>GPA Bonus Weight</th>
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<tbody>
<tr>
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<td>Foreign Language</td>
<td>French 3</td>
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The Career Academies program provides students the opportunity to participate in programs that prepare students for careers in high wage, high demand jobs. The academies aim to prepare students for the workforce, offering them a curriculum that provides hands-on experience and certification opportunities in their chosen career pathway.

**Summer School**

**Technology-Based Credit Recovery Program:**
Credit Recovery will be available in summer school for students enrolled in Huntsville City Schools in grades 6 to 12 who failed a core course with an average of 40 or above. Instruction will be delivered through web-based instructional software and may also include targeted instruction supervised and managed by a highly-qualified teacher. The student must complete the prescribed modules for the designated course and pass the exam with a minimum of seventy percent (70%). The highest grade that a student may earn through credit recovery is a 70. Students wishing to earn a higher grade or students who failed a course with less than a 40 must complete the entire course. For a current list of summer school dates and locations, please visit the Huntsville City Schools website. Click here to go to the Huntsville City Schools website.

Note: The NCAA Eligibility Center does NOT accept credits earned through Credit Recovery. Athletes seeking eligibility through the NCAA Eligibility Center must repeat the entire course. For more information, please speak to your athletic director or guidance counselor.

**Credit Enhancement Courses:**
Huntsville City Schools will also offer the following credit enhancement courses during the summer program (*tuition and fees may apply*):

- Health 0.5
- Driver and Traffic Safety Education 0.5

Registration for summer school typically begins the first week in April.

**Course Fees**

The district will not charge fees for core courses and magnet courses. For high schools, course fees will be collected for Art, Career Tech, and Driver’s Ed courses. Students may apply for reduction in fees via Infosnap. If approved, the maximum fee per class is $10. Dues for career and technical student organizations may not be waived.
ENGLISH, GRADE 9 (200005)
Grade: 9     Credit: 1.0
Prerequisite(s): none

This course integrates listening, speaking, reading, writing, and grammar skills. Research skills will be introduced. Library and computer word processing skills are taught. Many literary themes and forms are studied.

ENGLISH, GRADE 9, HONORS (200006)
Grade: 9     Credit: 1.0
Prerequisite(s): none

This rigorous honors course is designed for highly motivated students who have already acquired the language arts skills expected of ninth graders. This course expands and integrates listening, speaking, reading, writing, and grammar skills. Students will write a research paper using the MLA format. Library and computer word processing skills are taught. Students will write expository, creative, and critical essays. World literature and many literature themes and forms are studied. This course is weighted 5 points on a 100-point scale.

ENGLISH, GRADE 10 (200009)
Grade: 10    Credit: 1.0
Prerequisite(s): English 9 or English 9, Honors

This course expands listening, speaking, reading, writing, and grammar skills. Students study American literature to 1900 and world literature that influenced the development of American literature. Students will write a research paper using the MLA format.

ENGLISH, GRADE 10, HONORS (200010)
Grade: 10    Credit: 1.0
Prerequisite(s): English 9 or English 9, Honors

This rigorous honors course is designed for highly motivated students who have already acquired the language arts skills expected of tenth graders. The course expands listening, speaking, writing, reading, and grammar skills. American literature to 1900 and world literature that influenced the development of American literature will be studied. Students will write a research paper using the MLA format. This course is weighted 5 points on a 100-point scale.

ENGLISH, GRADE 11 (200013)
Grade: 11    Credit: 1.0
Prerequisite(s): English 10 or English 10, Honors

This course continues to expand listening, speaking, reading, writing, and grammar skills. Students will read selections from twentieth-century American literature. Students will write a research paper using the MLA format.
ENGLISH, LANGUAGE AND COMPOSITION, AP (200016)
Grade: 11  Credit: 1.0
Prerequisite(s): English 10 or English 10, Honors

This course, equivalent to college English, focuses on language arts skills and nonfiction literature. Students will engage in timed writing, analysis of writers’ style and diction, and preparation for the AP Language and Composition test. Students may receive college credit and/or qualify for advanced standing upon entering college. Students will write a research paper using the MLA format. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

ENGLISH, GRADE 12 (200017)
Grade: 12  Credit: 1.0
Prerequisite(s): English 11 or English Language and Composition, AP

This course continues to expand listening, speaking, reading, writing, and grammar skills. Students will write a research paper using the MLA format. British literature will be studied.

ENGLISH, LITERATURE AND COMPOSITION, AP (200020)
Grade: 12  Credit: 1.0
Prerequisite(s): English 11 or English Language and Composition, AP

This course, equivalent to college English, focuses on language arts skills and world literature. Frequent timed writing of critical/analytical essays is a vital part of this course as these assignments prepare students to score well on the AP Literature and Composition test. Students may receive college credit and/or qualify for advanced standing upon entering college. Students will write a formal, analytical research paper using the MLA format. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)
ALGEBRA IA (210008)
Grade: 9     Credit: 1.0  
Prerequisite(s): Approval of instructor

This is part one of a two-part course designed for those students who wish to take a first-year Algebra course but would be unable to maintain the pace of a standard one-year course. Application is integrated and emphasized in all topics to systematically develop problem solving and other critical thinking skills. The successful completion of Algebra IA and IB meets the Algebra I requirement set forth by the Alabama State Course of Study. Each course counts as one-half credit for NCAA eligibility.

ALGEBRA IB (210009)
Grade: 9     Credit: 1.0  
Prerequisite(s): Approval of instructor and Algebra IA

This is part two of a two-part course designed for those students who wish to take a first-year Algebra course but would be unable to maintain the pace of a standard one-year course. Application is integrated and emphasized in all topics to systematically develop problem solving and other critical thinking skills. The successful completion of Algebra IA and IB meets the Algebra I requirement set forth by the Alabama State Course of Study. Each course counts as one-half credit for NCAA eligibility.

Both Algebra IA and Algebra IB must be taken in the same school year.

ALGEBRA I (210005)
Grade: 9     Credit: 1.0  
Prerequisite(s): none

This course focuses on a study of fundamental structures of the real number system. Attention will be given to the algebraic properties and operations throughout the course. Applications will be integrated into all topics. Appropriate use of technology allows students opportunities to work to improve concept development. Thus, students are empowered to perform mathematically, both with and without the use of technological tools. Algebra I is a college preparatory course as well as a course for those who are considering post-secondary education in technical or trade fields.

GEOMETRY (210010)
Grades: 9 and 10   Credit: 1.0  
Prerequisite(s): Algebra IA and IB or Algebra I

This course focuses on the formal development of geometric skills and concepts prerequisite to taking Algebra II. The course includes consistent use of Algebra to reinforce the skills and concepts developed in Algebra I. It also includes the formal representation of logical arguments and the application of logical principles to geometric proof. Problem-solving skills in the development of geometric concepts are integrated throughout the course.
GEOMETRY, HONORS (210011)
Grades: 9 to 10 Credit: 1.0
Prerequisite(s): Algebra I

This is a fast-paced course that covers advanced concepts to prepare students for AP Calculus. Rigorous development of the formal representation of logical arguments is emphasized. Problem-solving skills in the development of geometric concepts are integrated throughout the course. This course is weighted 5 points on a 100-point scale.

ALGEBRAIC CONNECTIONS (210015)
Grade: 11 Credit: 1.0
Prerequisite(s): Geometry (Note: Students who have completed Algebra II or Algebra II with Trigonometry or a higher-level math course are NOT eligible to take this course.)

This course provides students with a bridge to courses beyond the level of Algebra I and Geometry and to the mathematical empowerment needed to make responsible financial and economic decisions. It is designed for students who need additional mathematical experiences prior to enrollment in Algebra II, with or without Trigonometry. The course incorporates topics from algebra, geometry, measurement, and probability and statistics with an emphasis on real-world applications.

ALGEBRA II (210016)
Grade: 12 Credit: 1.0
Prerequisite(s): Geometry

Algebra II is a course designed to extend students’ algebraic knowledge and skills beyond Algebra I. Students are encouraged to solve problems using a variety of methods that promote the development of improved communication skills and foster a deeper understanding of mathematics. To help students appreciate the power of algebra, application-based problems are incorporated throughout the course. The use of appropriate technology is also encouraged for numerical and graphical investigations. Algebra II is required to complete the graduation requirements for the Alabama High School Diploma. Algebra II does not provide sufficient background to prepare students to pursue higher-level mathematics courses such as Pre-Calculus, Analytical Mathematics, and Discrete Mathematics.

ALGEBRA II WITH TRIGONOMETRY (210017)
Grades: 10 to 12 Credit: 1.0
Prerequisite(s): Geometry or Geometry, Honors

This is an extension of the study of the number system that began in Algebra I. Emphasis is placed on function notation and on understanding the use of algebraic structure and techniques. Exponential and logarithmic functions, complex numbers, and trigonometry are considered integral parts of this course content. Real world problems to motivate and apply theory are integrated into all areas to illustrate meaningful application of algebra. Use of the graphing calculator may be required. **NOTE: Student cannot receive credit in this course if the student has earned a credit in Algebra II.**
ALGEBRA II WITH TRIGONOMETRY, HONORS (210017aa)

Grades: 9 to 11  Credit: 1.0
Prerequisite(s): Geometry or Geometry, Honors

This is an accelerated, fast-paced course designed to challenge the highly-motivated math student as well as prepare them for Precalculus and AP Calculus. This approach requires maturity, personal commitment, and a strong background in mathematics. The course teaches students to understand algebra in the study of the structure of the system of complex numbers, to recognize the techniques of algebra and trigonometry as reflections of this structure, to comprehend the function concept, to acquire facility in applying algebraic and trigonometric concepts and skills, to perceive the role of deductive reasoning, and to appreciate the need for precision of language. Use of the graphing calculator may be required. This course is weighted 5 points on a 100-point scale. **NOTE: Student cannot receive credit in this course if student has earned a credit in Algebra II.**

DISCRETE MATHEMATICS (210018)

Grade: 12  Credit: 1.0
Prerequisite(s): Algebra II with Trigonometry or Algebra II with Trigonometry, Honors

Discrete Mathematics expands upon the topics of matrices, combinational reasoning, counting techniques, algorithms, sequences, series, and their applications. Students are expected to work in both individual and group settings to apply problem-solving strategies and to incorporate technological tools that extend beyond traditional instructional practices. This is a terminal course.

PRECALCULUS (210020)

Grades: 10 to 12  Credit: 1.0
Prerequisite(s): Algebra II with Trigonometry or Algebra II with Trigonometry, Honors

This course is designed for students considering careers in mathematical or scientific fields of study. Topics include the algebra of functions, transformations involving conic sections, complex numbers, the polar coordinate system, sequences, and series, and include extensive work with trigonometric identities, equations, and inequalities.

PRECALCULUS, HONORS (210020aa)

Grades: 10 to 12  Credit: 1.0
Prerequisite(s): Algebra II with Trigonometry or Algebra II with Trigonometry, Honors

This is an accelerated course designed for the student with a strong background in college preparatory mathematics. The course covers the algebra of functions including circular functions, transformations involving conic sections, complex numbers, the polar coordinate system, sequences and series, matrices, vectors, limits and includes extensive work with trigonometric identities, equations, and inequalities. This course is weighted 5 points on a 100-point scale.

CALCULUS AB, AP (210025)

Grades: 11 to 12  Credit: 1.0
Prerequisite(s): Precalculus or Precalculus, Honors

This is a college-level course for juniors or seniors who have completed a year of Precalculus. There is an in-depth study of elementary functions, limits, differential calculus, and integral calculus. The selection of topics meets the requirements set forth in the AB Syllabus of the College Entrance Examination Board and parallels the course description for one or two semesters of Calculus at major universities. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)
CALCULUS BC, AP (210026)
Grade: 12  Credit: 1.0
Prerequisite(s): Precalculus or Precalculus, Honors
This is a college-level course for seniors who have completed a year of Precalculus. The course offers an in-depth study of limits, differential calculus, integral calculus, and sequences and series. The selection of topics meets the requirements set forth in the BC Syllabus of the College Entrance Examination Board and parallels the course description for two semesters of Calculus at most universities. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

STATISTICS, AP (210027)
Grades: 11 to 12  Credit: 1.0
Prerequisite(s): Algebra II with Trigonometry or Algebra II with Trigonometry, Honors
This is a college-level course for juniors or seniors who have completed Algebra II with Trigonometry. The course is an introduction to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Four broad conceptual themes are covered: exploring data by observing patterns, planning a study, anticipating patterns through probability and simulation, and statistical inference. The course is designed to prepare the student to take the Advanced Placement Statistics Examination for college credit. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)
BIOLOGY (220011)
Grade: 9  Credit: 1.0
Prerequisite(s): none

This entry-level course is a comprehensive study for the possibly college-bound student. Heavy emphasis is placed on the Alabama State Course of Study: Science. This course is structured to help students build appropriate vocabulary, critical thinking skills and laboratory techniques in preparation for high levels of science.

BIOLOGY, HONORS (220012)
Grade: 9  Credit: 1.0
Prerequisite(s): none

This advanced course is a faster-paced comprehensive study for college-bound students. Critical thinking skills are developed using labs, scientific processes, and discussion topics including scientific method, matter, cells, DNA, genetics, classification, microbiology, fungi, plants, invertebrates, and vertebrates. This course is weighted 5 points on a 100-point scale.

BIOLOGY, AP (220014)
Grades: 11 to 12  Credit: 1.0
Prerequisite(s): Biology, Honors and Chemistry or Chemistry, Honors (recommended)

This challenging course is designed to be the equivalent of an introductory, two-semester college-level biology course. This course covers topics regularly covered in a college biology course at a fast pace. The goal is to cover the unit topics listed in the College Board Description such as biochemistry, cell biology, bioenergetics; Mendelian, molecular, and population genetics; survey of the domains Eubacteria and Eukarya, structure and function of plants and animals, behavior, and ecology. Students will also be required to perform the twelve biology laboratories mandated by the College Board of AP Biology. This course will prepare students to take the national AP exam. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

CHEMISTRY (220061)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Biology, a physical science course, and Algebra I

This course is a lab-based introduction to chemistry for students who do not intend to major in science or math. This course includes many of the same areas covered in Chemistry, honors; however, the math required for successful understanding is less intensive.

CHEMISTRY, HONORS (220062)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): Biology or Biology, Honors (recommended) and Algebra I

This is a laboratory-based course that introduces the basic theoretical principles of chemistry with an emphasis on math and problem solving. It is designed for the college-bound student who has an interest in science and math. This course is weighted 5 points on a 100-point scale.
CHEMISTRY, ADVANCED LEVEL (ORGANIC) (220063)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Chemistry, Honors

This is a college preparatory course designed for students planning to pursue a career in science or with a strong interest in chemistry. The course will cover new topics not included in the Chemistry course. Organic chemistry will be emphasized. This course is weighted 5 points on a 100-point scale.

CHEMISTRY, AP (220064)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Chemistry, Honors; strongly recommend enrollment in Algebra II with Trigonometry or a higher-level math course

This is a challenging laboratory science course with a heavy emphasis on mathematical problem-solving skills. It covers primarily the inorganic and physical chemistry concepts usually covered in a first-year college chemistry course. It provides a strong foundation for students wishing to pursue competitive engineering, medical, or other science programs at the college level. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

EARTH AND SPACE SCIENCE (220081)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Biology and Physical Science

NOTE: DOES NOT FULFILL THE GRADUATION REQUIREMENT FOR BIOLOGY OR "A PHYSICAL SCIENCE." Comprehensive application of all science disciplines with focus on concepts of the universe and its Stars, Earth and the solar system, history of planet Earth, Earth’s materials and systems, plate tectonics, large-scale system interactions, the roles of water in Earth’s surface processes, weather, and climate, and biogeology; includes integration of engineering, technology, and application of science core ideas.

ENVIRONMENTAL SCIENCE (220029)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Biology and a physical science course

This lab-based course is a study of the interrelationships of organisms with their environments; an appreciation for the environment; and understanding of factors that influence the environment.

ENVIRONMENTAL SCIENCE, AP (220032)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Biology, or Biology, Honors, and Chemistry or Chemistry, Honors (recommended)

This lab-based course is designed to be the equivalent of a one-semester, introductory college course in environmental science. This course will provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)
FORENSIC AND CRIMINAL INVESTIGATIONS (410025)
Grades: 11 and 12 Credit: 1.0
Prerequisite(s): Biology and Chemistry

This course focuses on the history of forensic science; criminal investigation; forensic serology and DNA; forensic studies in anthropology, toxicology, fingerprinting, firearms, and physics; and document examination.

HUMAN ANATOMY AND PHYSIOLOGY (220026)
Grades: 10 to 12 Credit: 1.0
Prerequisite(s): Biology or Biology, Honors

In this lab-based course one studies the structure, function, and dysfunction of the human body by emphasizing body systems. This course is especially recommended for students interested in medical fields.

PHYSICAL SCIENCE (220051)
Grades: 10 to 12 Credit: 1.0
Prerequisite(s): Biology

This lab-based course is designed for the student who may or may not be college bound and serves as an introduction to both chemistry and physics. Students will learn about the physical and chemical behavior of matter and its association with energy. Topics include atomic structure, organization of matter, physical and chemical properties, heat, light, electromagnetism, mechanics, the solar system, and science applications. The use of math, charts, and data tables are included.

PHYSICS (220071aa)
Grades: 10 to 12 Credit: 1.0
Prerequisite(s): Successful completion of Chemistry or Chemistry, Honors and Geometry or Geometry, Honors and enrollment in Algebra II with Trigonometry or a higher-level math course

This is a lab-based course of fundamental physical science dealing with matter and the transformation of energy. The topics covered include mechanics (a study of force and motion), heat, sound, light, and electricity.

PHYSICS 1, AP (220057)
Grades: 11 and 12 Credit: 1.0
Prerequisite(s): Successful completion of Geometry, plus Chemistry, Honors and/or Physics, and enrollment in Algebra II with Trigonometry or a higher-level math course

This is a rigorous, lab-based physics course similar to a first-semester college course in algebra-based physics and is recommended for science majors. Topics covered include Newtonian mechanics (including rotational dynamics); work, energy, and power; mechanical waves and sound; and introductory electric circuits. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)
PHYSICS 2, AP (220058)

Grades: 11 and 12    Credit: 1.0

Prerequisite(s): Physics I, AP or comparable course in physics and completion of or enrollment in Precalculus or above

This is a second-year, rigorous, lab-based physics course similar to a second-semester college course in algebra-based physics and is recommended for science majors. Topics covered include fluid mechanics, thermodynamics, electricity and magnetism, optics, and atomic and nuclear physics. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

PHYSICS C: ELECTRICITY AND MAGNETISM, AP (220075) SEMESTER

Grades: 11 and 12    Credit: 0.5

Prerequisite(s): Successful completion of an AP Physics course and completion of or enrollment in Calculus AB, AP or Calculus BC, AP

This is a second or third-year, rigorous, lab-based physics course similar to a second-semester college course in calculus-based physics, covering electricity and magnetism. This course is recommended for students majoring in the physical sciences or engineering. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

PHYSICS C: MECHANICS, AP (220069) SEMESTER

Grades: 11 and 12    Credit: 0.5

Prerequisite(s): Successful completion of Chemistry, Honors plus either AP Physics I or Physics and completion of or enrollment in AB or BC Calculus

This is a second or third-year, rigorous, lab-based physics course similar to a first-semester college course in calculus-based physics. This course is recommended for students majoring in the physical sciences or engineering. Topics covered include Newton's laws of motion; work, energy and power, systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)
WORLD HISTORY: 1500 TO PRESENT (230013)
Grade: 9  Credit: 1.0
Prerequisite(s): none
This course is the concluding year-long study in the sequence of world history for students in Alabama’s schools. Instruction in this course builds on the knowledge and skills that students have acquired in their previous studies in history and geography. The course is organized chronologically with content topics that focus on critical issues in history during recent times. Students study and analyze global issues regarding politics, economics, society, and the environment.

WORLD HISTORY: 1500 TO PRESENT, HONORS (230014)
Grade: 9  Credit: 1.0
Prerequisite(s): none
This course is the concluding year-long study in the sequence of World History for students in Alabama’s schools. Instruction in this course builds on the knowledge and skills that students have acquired in their previous studies in history and geography. The course is organized chronologically with content topics that focus on critical issues in history during recent times. Students study and analyze global issues regarding politics, economics, society, and the environment. This course is designed to emphasize writing, research, and critical thinking skills necessary to prepare students for future Advanced Placement History courses. This is a challenging CONTENT course that will include intellectual-cultural, political-diplomatic, and social-economic history. This course is weighted 5 points on a 100-point scale.

HUMAN GEOGRAPHY, AP (230062)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none
This is a one-year course designed to introduce students to the systematic study of patterns and processes that have shaped human understanding of, use of, and alteration of the earth’s surface. Students will employ spatial concepts and landscape analysis to examine human social organization, and its environmental consequences. Students will also learn about the methods and tools that geographers use in their science. Specific studies will include the analysis of maps, charts, and spatial data. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)
Note: Students who take Human Geography, AP will then need to take World History, AP, World History: 1500 to Present, or World History: 1500 to Present, Honors to fulfill graduation requirements.

UNITED STATES HISTORY I: BEGINNINGS TO THE INDUSTRIAL REVOLUTION (230016)
Grade: 10  Credit: 1.0
Prerequisite(s): World History 9 or World History 9, Honors
This course is a comprehensive study of the historic development of American ideas and institutions from the Age of Exploration to 1900. While focusing on political and economic history, the standards provide students with a basic knowledge of American culture through a chronological survey of major issues, movements, people, and events in United States and Alabama history.
UNITED STATES HISTORY I: BEGINNINGS TO THE INDUSTRIAL REVOLUTION, HONORS (230017)
Grade: 10       Credit: 1.0
Prerequisite(s): World History 9 or World History 9, Honors

This course is a comprehensive study of the pre-European cultures of the Americas to the development of the modern, industrialized 20th century United States. The course emphasizes research, writing, and critical thinking skills necessary to prepare students for 11th grade AP U.S. History. This course is designed to emphasize writing, research, and critical thinking skills necessary to prepare students for future Advanced Placement History courses such as 11th grade AP U.S. History and AP European History (elective). This course is weighted 5 points on a 100-point scale.

EUROPEAN HISTORY, AP (230029)
Grades: 10 to 12       Credit: 1.0
Prerequisite(s): none

This course is offered to students interested in research and in-depth reading. The course is designed to prepare students for the College Board Exam in the History of Western Civilization. Course content will be based on the intellectual-cultural and social-economic history as well as the more traditional political-diplomatic sphere from the time of 1450 (the high Renaissance) to present. Writing, evaluation of primary sources, and critical thinking skills will be stressed. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

WORLD HISTORY, AP (230027)
Grades: 10 to 12       Credit: 1.0
Prerequisite(s): none

This course analyzes global patterns of historical development and exchange from roughly 1200 – present. Using primary and secondary sources, students will track historical change and continuity within and across six historical periods of study. A great emphasis is placed on historical thinking skills, such as chronological reasoning, comparison, contextualization, argumentation, interpretation, and synthesis. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

UNITED STATES HISTORY II: THE INDUSTRIAL REVOLUTION TO THE PRESENT (230019)
Grade: 11       Credit: 1.0
Prerequisite(s): United States History I or United States History I, Honors

This course is a comprehensive study of critical issues and events in modern United States history. During this course, students gain knowledge of the changing political, economic, and cultural forces at work within the nation; of the impact of the natural environment on all aspects of life in America; and the role of America in the international community.
UNITED STATES HISTORY, AP (230022)
Grade: 11       Credit: 1.0
Prerequisite(s): United States History I or United States History I, Honors, or Human Geography, AP

This course is a complete survey course in American history from approximately 1491 to the present. Advanced Placement U.S. History focuses upon significant events, individuals, developments, facts, and processes. The course emphasizes the inter-relationships of the various disciplines while developing and reinforcing basic social studies skills. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

ECO NOMICS (230051) SEMESTER
Grade: 12       Credit: 0.5
Prerequisite(s): United States History II or United States History, AP

Emphasis is placed upon the historical background and current application of economic concepts, methodology and terminology, and upon problem solving as a way of demonstrating understanding. The American economy is emphasized, with study of comparative systems included. The intent of this course is to provide students with the tools to understand and make informed decisions as participants within our economy.

MACROECONOMICS, AP (230054aa) SEMESTER or (230054) YEAR
Grade: 12       Credit: 0.5 SEMESTER or 1.0 YEAR
Prerequisite(s): United States History II or United States History, AP

The purpose of this advanced placement course in macroeconomics is to give students a thorough understanding of the principles of economics that apply to the economy; with such major aggregates as the household, businesses, and government sectors, and with totals for the economy. Primary emphasis is placed upon national income accounting, employment, fiscal policy, money and banking, monetary policy, economic growth, and international economics. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

UNITED STATES GOVERNMENT (230041) SEMESTER
Grade: 12       Credit: 0.5
Prerequisite(s): United States History II

This course focuses on the structure and operation of government at all levels in the nation.

UNITED STATES GOVERNMENT and POLITICS, AP (230047aa) SEMESTER or (230047) YEAR
Grade: 12       Credit: 0.5 SEMESTER or 1.0 YEAR
Prerequisite(s): United States History II or United States History, AP

This course is designed to give students a critical perspective of government and politics in the United States. This course involves both the study of general concepts used to interpret American politics and the analysis of specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that make up the American political reality. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)
Elective Course Descriptions

Elective courses are classes outside core academic courses which students choose. Huntsville City Schools offers a wide variety of elective courses in areas such as art, music, career and technical education, foreign language, health/physical education, etc.

Elective courses provide students with the opportunity to explore their academic, career, and personal interests. Elective courses can also motivate and inspire students to excel in performing and visual arts, athletics, academic teams, student organizations, and extracurricular activities.

We encourage you to choose electives wisely. Electives, along with core academic classes, are reflected on your transcript. Your high school transcript provides a snapshot of your effort and choices in high school. Electives can also support college admissions, scholarships, and employment opportunities.

We strongly encourage you to ask questions about elective courses and seek input from administrators, counselors, teachers, coaches, and sponsors. They are there to guide and support your college and career goals and interests.

**NOTE:** Elective course offerings are subject to minimum enrollment quotas. If minimum enrollment requirements are not met, the elective course may be cancelled.
Huntsville City Schools is participating in a program offered by the College Board through the AP Capstone program at Grissom and Huntsville High Schools. The AP Capstone program was developed by the College Board in response to feedback from higher education. AP Capstone is an innovative new diploma program that gives students an opportunity to apply critical thinking, collaborative problem-solving, and research skills in a cross-curricular context. AP Capstone is built on the foundation of a new two-year high school course sequence—AP Seminar and AP Research. In AP Seminar, students will complete a team project and presentation and a research-based essay and presentation, along with taking a formal AP exam in May. Students who complete both the AP Seminar Class (Year 1) and the AP Research Class (Year 2) and earn score of 3 or higher on the national exam may earn an AP Capstone Certificate. Students who earn the Certificate and score 3 or higher on 4 other AP courses will earn the AP Capstone Diploma. This program is available to students in grades 10-12 with teacher or counselor recommendation. Students are responsible for paying the AP exam fee of $149. Click here for AP Capstone information.

**AP SEMINAR (230089)**
*Grades: 10 to 12  Credit: 1.0  Prerequisite(s): Approval of instructor or school counselor*

A college-level foundational course following the curriculum established by the College Board Advanced Placement (AP) Program; provides students with opportunities to think critically and creatively, research, explore, pose solutions, develop arguments, collaborate, and communicate using various media; facilitates the exploration of real-world issues through cross-curricular lens; considers multiple points of view to develop deep understanding of complex issues and topics as connections are made between issues and students’ own lives. This course is weighted 10 points on 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

**AP RESEARCH (230088)**
*Grades: 11 and 12  Credit: 1.0  Prerequisite(s): AP Seminar*

This course requires students to design, plan, and conduct a year-long research based investigation to address a research question on an academic topic, problem, or issue of individual interest. Students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing. This course is weighted 10 points on 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)
ART HISTORY, AP (280101)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Visual Arts, Introduction to Visual Arts I
Fee(s): $30 per semester

This course is designed to provide the same benefits to secondary school students as those provided by an introductory college course in art history. Students examine major forms of artistic expression from the ancient world to the present and from a variety of cultures. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

VISUAL ARTS, CERAMICS II (286207)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): Visual Arts, Level I
Fee(s): $30 per semester

This one credit course, intermediate level, is first of a sequential high school course focusing on the medium of ceramics. Creating, presenting, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how ceramics communicates ideas and allows for self-expression. Through exploration and experimentation, this course provides students with a more in depth foundation in the ceramic studio processes, art criticism, aesthetics, and art history. Students will respond to personal experiences and express ideas using a variety of traditional and contemporary ceramic process, while effectively applying the elements of art and principles of design. Safe practices and proper use of tools, equipment and materials are emphasized. (Note: Enrollment is limited.)

VISUAL ARTS, CERAMICS III (286307)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Visual Arts, Ceramics II
Fee(s): $30 per semester

This one credit course, accomplished level, is second of a sequential high school course focusing on the medium of ceramics. Creating, presenting, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how ceramics communicates ideas and allows for self-expression. Through exploration and experimentation, this course provides students with a comprehensive study in the ceramic studio processes, art criticism, aesthetics, and art history. Students will respond to personal experiences and express ideas using a variety of traditional and contemporary ceramic process, while effectively applying the elements of art and principles of design. Safe practices and proper use of tools, equipment and materials are emphasized. (Note: Enrollment is limited.)
VISUAL ARTS, INTRODUCTION TO CRAFTS I (286101aa) SEMESTER
Grades: 10 to 12  Credit: 0.5
Prerequisite(s): none
Fee(s): $30 per semester

This one semester course, novice level, it is the first of a sequential high school course focusing on craft arts. Creating, presenting, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how craft arts communicate ideas and allows for self-expression. Through exploration and experimentation, this course provides students with a general foundation in functional art including the history of crafts, crafts of various cultures, studio practice in a variety of crafts media, safe studio practices, proper care and storage of supplies and equipment, aesthetics, criticism, and elements and principles of design.

VISUAL ARTS, CRAFTS II (286201aa) SEMESTER
Grades: 10 to 12  Credit: 0.5
Prerequisite(s): Introduction to Visual Arts I, Introduction to Crafts I
Fee(s): $30 per semester

This one semester course, intermediate level, it is the second of a sequential high school course focusing on craft arts. Creating, presenting, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how craft arts communicate ideas and allows for self-expression. Through exploration and experimentation, this course provides students with a more in depth study of foundations in functional art including the history of crafts, crafts of various cultures, studio practice in a variety of crafts media, safe studio practices, proper care and storage of supplies and equipment, aesthetics, criticism, and elements and principles of design.

VISUAL ARTS, DRAWING II (286210)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): Visual Arts, Level I
Fee(s): $30 per semester

This one credit course, intermediate level, is first of a sequential high school course focusing on the medium of drawing. Creating, presenting, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how drawing communicates ideas and allows for self-expression. Through exploration and experimentation, this course provides students with a more formal foundation in the drawing studio processes, art criticism, aesthetics, and art history. Students will respond to personal experiences and express ideas using a variety of traditional and contemporary drawing process, while effectively applying the elements of art and principles of design. Safe practices and proper use of tools, equipment and materials are emphasized.
VISUAL ARTS, DRAWING III (286310)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): Visual Arts, Drawing II
Fee(s): $30 per semester

This one credit course, accomplished level, is second of a sequential high school course focusing on the medium of drawing. Creating, presenting, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how drawing communicates ideas and allows for self-expression. Through exploration and experimentation, this course provides students with a comprehensive study in the drawing studio processes, art criticism, aesthetics, and art history. Students will respond to personal experiences and express ideas using a variety of traditional and contemporary drawing process, while effectively applying the elements of art and principles of design. Safe practices and proper use of tools, equipment and materials are emphasized.

VISUAL ARTS, PAINTING II (286208)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Introduction to Visual Arts I
Fee(s): $30 per semester

This one credit course, intermediate level, is first of a sequential high school course focusing on the medium of painting. Creating, presenting, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how painting communicates ideas and allows for self-expression. Through exploration and experimentation, this course provides students with a more formal foundation in the painting studio processes, art criticism, aesthetics, and art history. Students will respond to personal experiences and express ideas using a variety of traditional and contemporary painting process, while effectively applying the elements of art and principles of design. Safe practices and proper use of tools, equipment, and materials are emphasized.

VISUAL ARTS, PAINTING III (286308)
Grade: 12  Credit: 1.0
Prerequisite(s): Visual Arts, Painting II
Fee(s): $30 per semester

This one credit course, accomplished level, is second of a sequential high school course focusing on the medium of painting. Creating, presenting, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how painting communicates ideas and allows for self-expression. Through exploration and experimentation, this course provides students with a comprehensive study in the painting studio processes, art criticism, aesthetics, and art history. Students will respond to personal experiences and express ideas using a variety of traditional and contemporary painting process, while effectively applying the elements of art and principles of design. Safe practices and proper use of tools, equipment, and materials are emphasized.
VISUAL ARTS, INTRODUCTION TO PHOTOGRAPHY I (286102)
Grades: 10 – 12  Credit: 1.0
Prerequisite(s): Visual Arts, Level I
Fee(s): $30 per semester

This one credit course, novice level, is the first of a sequential high school course focusing on photography. Creating, presenting, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how photography communicates ideas and allows for self-expression. Through exploration and experimentation, this course provides students with a general foundation of analog photography, elements, and principles of design; aesthetics; criticism; art/photography history; evaluation of photographic artwork; proper care and storage of analog photography supplies; integration of appropriate media and techniques; communication of ideas; solution of artistic problems; minimal use of digital photography may be incorporated.

VISUAL ARTS, PHOTOGRAPHY II (286202)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Visual Arts, Introduction to Photography I
Fee(s): $30 per semester

This one credit course, intermediate level, is the second of a sequential high school course focusing on photography. Creating, presenting, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how photography communicates ideas and allows for self-expression. Through exploration and experimentation, this course provides students with a more in-depth study in foundations of analog photography, elements, and principles of design; aesthetics; criticism; art/photography history; evaluation of photographic artwork; proper care and storage of analog photography supplies; integration of appropriate media and techniques; communication of ideas; solution of artistic problems; minimal use of digital photography may be incorporated.

STUDIO ART: DRAWING, AP (280102)
STUDIO ART: 2-D DESIGN, AP (280103)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Visual Arts, Level I, four semesters of upper-level art classes, and permission of Art faculty
Fee(s): $30 per semester

Studio Art, AP offers two portfolio courses: (1) Drawing and (2) 2-D Design. The two studio art courses are designed for students who are seriously interested in the practice of art. Those who plan to continue their education in the visual arts at an art institute, college, or university may wish to take these courses. It is recognized that the students will need to work independently outside the classroom and beyond scheduled periods. Additional costs will occur for this course. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)
VISUAL ARTS, INTRODUCTION TO VISUAL ARTS I (286100)

Grades: 9 to 12  
Credit: 1.0

Prerequisite(s): none

Fee(s): $30 per semester

This one credit course, novice level, it is the first of a sequential high school course. Creating, presenting, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how visual arts communicate ideas and allows for self-expression. Through exploration and experimentation, this course provides students with a general foundation in studio processes, art criticism, aesthetics, and art history. Students respond to personal experiences and express ideas using a variety of traditional and contemporary media while effectively applying the elements of art and principles of design to create original works of art. Safe practices and proper use of tools and materials are emphasized.

VISUAL ARTS, LEVEL II (286200)

Grades: 9 and 12  
Credit: 1.0

Prerequisite(s): Visual Arts, Introduction to Visual Arts I

Fee(s): $30 per semester

This one credit course, intermediate level, it is the second of a sequential high school course. Creating, presenting, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how visual arts communicate ideas and allows for self-expression. Through exploration and experimentation, this course provides students with a more in depth study of foundations in studio processes, art criticism, aesthetics, and art history. Students respond to personal experiences and express ideas using a variety of traditional and contemporary media while effectively applying the elements of art and principles of design to create original works of art. Safe practices and proper use of tools and materials are emphasized.
Drivers Education

DRIVER AND TRAFFIC SAFETY EDUCATION (290001) FALL SEMESTER
DRIVER AND TRAFFIC SAFETY EDUCATION (290001aa) SPRING SEMESTER

**Grades:** 10 to 12  **Credit:** 0.5

**Prerequisite(s):** Must possess a Learner’s Permit. Enrollment form may be obtained from the Registrar.

**Fee(s):** $40 required for behind the wheel driving

This course encourages the development of students as responsible drivers. The program develops skills, knowledge, and attitudes, which will enable students to enter the complex traffic world in a safe and efficient manner. The responsible driver avoids all types of accidents and respects the privileges, rights, and safety of other drivers.

**NOTE:** With this course, students will have the opportunity to take part in the Department of Motor Vehicles (D.M.V.) Third Party Testing Program. With this program, along with parental permission and a learner’s permit, students will take the driving test for their driver’s license. Students that pass their driving test through this course will still have to go to the D.M.V. to get their license. This program stands separate from the Drivers Education Course and is not required.

A unit on boating and water safety will be taught. Students that pass the Alabama Basic Boating Test will receive a certificate from the Marine Police Department. When the students take their certificate to the Department of Motor Vehicles and pay the required fee, they will receive their boating license for life in the State of Alabama.
ACADEMIC LANGUAGE DEVELOPMENT (802209br)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Counselor referral and eligibility as outlined in the HCS Procedures for the Identification, Assessment, and Monitoring of Limited English Proficient Students

*This course is designed to develop and/or reinforce the language skills of the student who has limited English proficiency. Students develop their reading, writing, listening, and speaking skills as they relate to their other courses and to their life skills.*

ACADEMIC LANGUAGE DEVELOPMENT II (802209bs)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Counselor referral and eligibility as outlined in the HCS Procedures for the Identification, Assessment, and Monitoring of Limited English Proficient Students

*This course is designed to further develop and/or reinforce the language skills of the student who has limited English proficiency. Students develop their reading, writing, listening, and speaking skills as they relate to their other courses and to their life skills.*

BIBLE AS LITERATURE (200025)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** none

*This elective course will explore the Bible as literature. Questions concerning human identity, the meaning of life, and human ethics will provide the philosophical lens through which the course content will trace the influences of biblical ideas and writings on western civilization. This course will neither endorse any specific faith nor will its course content be used for religious indoctrination and denominational instruction.*

DEBATE (200045)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Approval of instructor

*A focus on speech events and presentation skills will emphasize the use of language, voice, gesture, and organizational skills. Debate, argumentation, and persuasion will also be emphasized skills. Students will learn the art of argumentation through a variety of assignments both prepared and impromptu. Special emphasis will be placed on use of logic, voice, gesture, and organizational skills. NOTE: This course requires participation in out-of-school tournaments.*
ENGLISH LAB (200036ah)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Counselor approval

English Lab addresses English, reading, writing, speaking and listening within a standards-based curriculum. Instruction will include reading comprehension using a variety of text with gradually increasing levels of text complexity, writing to confirm or refute claims in both narrative and expository formats, language conventions, vocabulary development in meaningful contexts, and using reference skills to support reading and writing. Students will study major works that extend across genres, cultures, and centuries. In addition, students analyze and interpret historical documents aligned to content in history. This course is an elective and does not count as one of the four required English courses for graduation.

LITERATURE, NOVELS (200029)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

Readings, discussions, and writings on selected novelists such as Hawthorne, Twain, and Melville

OTHER JOURNALISM ELECTIVES (200054)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): English teacher recommendation and sponsor approval

This elective course focuses on layout, design, photography, and advertising involved in publishing the school yearbook.

SCHOOL PUBLICATIONS (NEWSPAPER/MAGAZINE) (802202aa)
Grades: 10 to 12  Credit: 0.0
Prerequisite(s): English teacher recommendation and sponsor approval

This course focuses on creative writing and culminates in the publication of the school literary magazine or newspaper.

INTRODUCTION TO THEATER I (285100)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This one credit course, proficient level, explores beginning theatre. Creating, performing, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how theatre communicates ideas and allows for self-expression. Students will study, write, and/or perform scenes and monologues. Students will also be introduced to basic history of theater and technical theatre.

THEATRE II (285200)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): Introduction to Theater I

This one credit course, accomplished level, continues the study of theatre. Creating, performing, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how theatre communicates ideas and allows for self-expression. Students will study, write, and/or perform scenes and monologues. Students will use their acting to refine their theatre and technical technique. Students will study the history of theatre and perform solo, duo and group theatre works.

THEATRE III (285300)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Theatre II

This one credit course, advanced level, continues the study of theatre. Creating, performing, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how theatre communicates ideas and allows for self-expression. Students will study, write, and/or perform scenes and monologues. Students will further study the history of theater and technical theatre.

INTRODUCTION TO MUSICAL THEATRE I (285101)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Theatre, Level I

This one credit course, proficient level, explores beginning musical theatre. Creating, performing, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand how musical theatre communicates ideas and allows for self-expression. Students will use their beginning acting and musical talent to refine their musical theatre technique. Students will study the history of musical theatre and perform solo, duo, and group musical theatre works. Afterschool hours are required.

INTRODUCTION TO TECHNICAL THEATER PRODUCTION (285102)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): Approval of instructor

This course is offered for 10-12 grade students by application and acceptance only. This one credit course, proficient level, explores beginning technical theatre. Creating, performing, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand theater through a technical theatre experience. Students will learn beginning design principles, scenery, lighting, costuming and sound design for theatre productions. Students will study the history of theatre and an emphasis will be place on the safe practices and proper use of tools, equipment, and materials. Afterschool hours are required.

TECHNICAL THEATRE PRODUCTION II (285202)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): Introduction to Technical Theater Production

This one credit course, accomplished level, continues the study of technical theatre. Creating, performing, responding, and connecting drive critical thinking, meaning, reflection, production, and assessment to understand theater through a technical theatre experience. Students will learn design principles, scenery, lighting, costuming and sound design for theatre productions. Students will study the history of theatre and an emphasis will be place on the safe practices and proper use of tools, equipment, and materials.
## Foreign Languages

**FRENCH I (270023)**  
**GERMAN I (270043)**  
**LATIN I (270111)**  
**SPANISH I (270153)**  
**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** none  

*Level I courses for French, German, Latin, and Spanish are offered to provide introduction to the language through a proficiency-based program that helps the student to develop the skills of listening, speaking, reading, and writing. Geographical, historical, cultural themes and basic conversational patterns are taught.*

**FRENCH II (270024)**  
**GERMAN II (270044)**  
**LATIN II (270112)**  
**SPANISH II (270154)**  
**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Level I foreign language course  

*Material from first level course is reviewed and more detailed study of vocabulary and grammar is included. More complex structures of the language along with intermediate conversational skills are presented, and the geographical, historical, and cultural themes of the first level are expanded.*

**FRENCH III (270025)**  
**GERMAN III (270045)**  
**LATIN III (270113)**  
**SPANISH III (270155)**  
**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Level II foreign language course  

*More advanced grammar, translation and conversational skills are emphasized in preparation for the 4th year AP course. This course is weighted 5 points on a 100-point scale.*

**FRENCH LANGUAGE AND CULTURE, AP (270027)**  
**GERMAN LANGUAGE AND CULTURE, AP (270047)**  
**LATIN, AP (270115)**  
**SPANISH LANGUAGE, AP (270157)**  
**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Level III foreign language course  

*Advanced grammar, translation, and conversational skills are utilized in preparation for the AP exam. Also included is the study of historical figures, authors, and the literature of the target language. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.*)
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LIFELONG INDIVIDUALIZED FITNESS EDUCATION (240002)

Grades: 9 to 12  Credit: 1.0

Prerequisite(s): none

The focus of this required introductory course, Lifelong Individualized Fitness Education (LIFE), is health-enhancing physical activity. LIFE provides the knowledge for a lifetime of healthy living. Through the LIFE course, students learn to apply the various aspects of fitness and assess their own fitness levels. Students are required to develop and maintain an individual level of fitness that forms the foundation for a healthy future. LIFE provides students with the knowledge and ability to construct and implement a lifelong plan for physical activity. LIFE is not the traditional course composed of sport units. LIFE uses a variety of health enhancing physical activities as the vehicle for reinforcing and applying fitness components and principles. Uniforms may be required.

VARSITY BASEBALL I (240017)

Grades: 9 to 12  Credit: 1.0

Prerequisite(s): none

This course covers first year student level baseball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to play baseball at a competitive level. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.
**VARSITY BASEBALL II (240018)**  
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): none  

*This course covers sophomore level baseball techniques. Emphasis is placed on developing more advanced strategies and techniques. Upon completion, students should be able to play baseball at a competitive level. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.*

**VARSITY BASEBALL III (240019)**  
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): none  

*This course covers junior level baseball techniques. Emphasis is placed on developing higher levels advanced strategies and techniques. Upon completion, students should be able to play baseball at a competitive level. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.*

**VARSITY BASEBALL IV (240020)**  
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): none  

*This course covers senior level baseball techniques. Emphasis is placed on the highest skills and developing more advanced strategies and techniques. Upon completion, students should be able to play baseball at a competitive level. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.*

**VARSITY BASKETBALL I (240021)**  
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): none  

*This course covers freshman student fundamentals of basketball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive basketball. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.*

**VARSITY BASKETBALL II (240022)**  
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): none  

*This course covers sophomore level fundamentals of basketball. Emphasis is placed on the refinement of skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive basketball. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.*
VARSITY BASKETBALL III (240023)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers junior level fundamentals of basketball. Emphasis is placed on developing higher levels advanced strategies and techniques. Upon completion, students should be able to participate in competitive basketball. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY BASKETBALL IV (240024)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers senior level advanced fundamentals of basketball. Emphasis is placed on the highest skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate in competitive basketball. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY BOWLING I (240024)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers freshman fundamentals of bowling. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive bowling. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY BOWLING II (240024)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers sophomore level fundamentals of bowling. Emphasis is placed on the refinement of skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive bowling. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY BOWLING III (240024)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers junior level fundamentals of bowling. Emphasis is placed on developing higher levels advanced strategies and techniques. Upon completion, students should be able to participate in competitive bowling. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.
VARSITY BOWLING IV (240024)
Grades: 9 to 12    Credit: 1.0
Prerequisite(s): none

This course covers senior level advanced fundamentals of bowling. Emphasis is placed on the highest skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate in competitive bowling. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY CHEERLEADING I (240025)
Grades: 9 to 12    Credit: 1.0
Prerequisite(s): none

This course covers freshman level cheerleading techniques. Emphasis is placed on developing skills, strategies, and techniques. Upon completion, students should be able to participate on a cheerleading squad. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY CHEERLEADING II (240026)
Grades: 9 to 12    Credit: 1.0
Prerequisite(s): none

This course covers sophomore cheerleading techniques. Emphasis is placed on refining skills and developing more strategies and techniques on a cheerleading squad. Upon completion, students should be able to participate in competitive cheerleading. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY CHEERLEADING III (240027)
Grades: 9 to 12    Credit: 1.0
Prerequisite(s): none

This course covers more advanced cheerleading techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate on a cheerleading squad. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY CHEERLEADING IV (240028)
Grades: 9 to 12    Credit: 1.0
Prerequisite(s): none

This course covers senior level cheerleading techniques. Emphasis is placed on high level skills and the highest level of advanced strategies and techniques. Upon completion, students should be able to participate on a cheerleading squad. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.
**VARSITY CROSS COUNTRY I (240029)**

*Grades:* 9 to 12  
*Credit:* 1.0  
*Prerequisite(s):* none

This course covers freshman cross country techniques. Emphasis is placed on developing skills and strategies and techniques. Upon completion, students should be able to participate in competitive cross country. **PREREQUISITE:** Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

**VARSITY CROSS COUNTRY II (240030)**

*Grades:* 9 to 12  
*Credit:* 1.0  
*Prerequisite(s):* none

This course covers sophomore cross country techniques. Emphasis is placed on refining skills and developing strategies and techniques. Upon completion, students should be able to participate in competitive cross country. **PREREQUISITE:** Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

**VARSITY CROSS COUNTRY III (240031)**

*Grades:* 9 to 12  
*Credit:* 1.0  
*Prerequisite(s):* none

This course covers junior level cross country techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate in competitive cross country. **PREREQUISITE:** Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

**VARSITY CROSS COUNTRY IV (240032)**

*Grades:* 9 to 12  
*Credit:* 1.0  
*Prerequisite(s):* none

This course covers senior advanced cross country techniques. Emphasis is placed on the highest level of skills, advanced strategies, and techniques. Upon completion, students should be able to participate in competitive cross country. **PREREQUISITE:** Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

**VARSITY FOOTBALL I (240033)**

*Grades:* 9 to 12  
*Credit:* 1.0  
*Prerequisite(s):* none

This course covers freshman level fundamentals of football. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive football. **PREREQUISITE:** Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.
VARSITY FOOTBALL II (240034)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers sophomore level fundamentals of football. Emphasis is placed on refining skills and developing strategies and techniques. Upon completion, students should be able to participate in competitive football.
PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY FOOTBALL III (240035)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers junior level fundamentals of football. Emphasis is placed on advanced skill development, knowledge of the rules, and game strategy. Upon completion, students should be able to participate in competitive football.
PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY FOOTBALL IV (240036)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers senior level advanced fundamentals of football. Emphasis is placed on advance skills, through understanding of the rules, and game strategy. Upon completion, students should be able to participate in competitive football. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY GOLF I (240037)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers freshman level phases of golf. Emphasis is placed on refining the fundamental skills and learning more phases of the game such as club selection, trouble shots, and course management. Upon completion, students should be able to demonstrate the knowledge and ability to play competitive golf. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY GOLF II (240038)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers sophomore level of golf. Emphasis is placed on refining the fundamental skills and learning more phases of the game. Upon completion, students should be able to demonstrate the knowledge and ability to play competitive golf. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.
VARSITY GOLF III (240039)
Grades: 9 to 12        Credit: 1.0
Prerequisite(s): none

This course covers the junior levels of golf. Emphasis is placed on fundamental skills and learning more advanced phases of the game. Upon completion, students should be able to demonstrate the knowledge and ability to play competitive golf. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY GOLF IV (240040)
Grades: 9 to 12        Credit: 1.0
Prerequisite(s): none

This course covers senior level advanced golf. Emphasis is placed on advanced skills and learning more advanced phases of the games. Upon completion, students should be able to demonstrate the knowledge and ability to play competitive golf. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY SOCCER I (240041)
Grades: 9 to 12        Credit: 1.0
Prerequisite(s): none

This course covers freshman fundamentals of soccer. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive soccer. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY SOCCER II (240042)
Grades: 9 to 12        Credit: 1.0
Prerequisite(s): none

This course covers sophomore fundamentals of soccer. Emphasis is placed on continuing skill development, rules, and game strategy. Upon completion, students should be able to participate in competitive soccer. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY SOCCER III (240043)
Grades: 9 to 12        Credit: 1.0
Prerequisite(s): none

This course covers junior level fundamentals of soccer. Emphasis is placed on refining skill development, rules, and game strategy. Upon completion, students should be able to participate in competitive soccer. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.
VARSITY SOCCER IV (240044)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers senior level advanced fundamentals of soccer. Emphasis is placed on advanced skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive soccer. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY SOFTBALL I (240045)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers freshman fundamentals of softball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive softball. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY SOFTBALL II (240046)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers sophomore fundamentals of softball. Emphasis is placed on continuing skill development, rules, and game strategy. Upon completion, students should be able to participate in competitive softball. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY SOFTBALL III (240047)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers junior level fundamentals of softball. Emphasis is placed on refining skill development, rules, and game strategy. Upon completion, students should be able to participate in competitive softball. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY SOFTBALL IV (240048)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course introduces the fundamental skills and rules of softball. Emphasis is placed on proper techniques and strategies for playing softball. Upon completion, students should be able to play competitive softball. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.
VARSITY SWIMMING I (240049)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers freshman fundamentals of swimming. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive swimming. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY SWIMMING II (240050)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers freshman fundamentals of swimming. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive swimming. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY SWIMMING III (240051)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers junior level fundamentals of swimming. Emphasis is placed on refining skill development, rules, and game strategy. Upon completion, students should be able to participate in competitive swimming. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY SWIMMING II (240052)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course introduces the advanced senior level skills and rules of swimming. Emphasis is placed on proper techniques and strategies for playing swimming. Upon completion, students should be able to play competitive swimming. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY TENNIS I (240053)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers freshman fundamentals of tennis. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive tennis. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.
VARSITY TENNIS II (240054)
Grades: 9 to 12 Credit: 1.0
Prerequisite(s): none

This course covers sophomore fundamentals of tennis. Emphasis is placed on continuing skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive tennis. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY TENNIS III (240055)
Grades: 9 to 12 Credit: 1.0
Prerequisite(s): none

This course covers junior level fundamentals of tennis. Emphasis is placed on refining skill development, rules, and game strategy. Upon completion, students should be able to participate in competitive tennis. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY TENNIS IV (240056)
Grades: 9 to 12 Credit: 1.0
Prerequisite(s): none

This course introduces the advanced senior level skills and rules of tennis. Emphasis is placed on proper techniques and strategies for playing tennis. Upon completion, students should be able to play competitive tennis. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY TRACK AND FIELD I (240057)
Grades: 9 to 12 Credit: 1.0
Prerequisite(s): none

This course covers freshman fundamentals of track and field. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive track and field. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY TRACK AND FIELD II (240058)
Grades: 9 to 12 Credit: 1.0
Prerequisite(s): none

This course covers more advanced track and field techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate in competitive track and field events. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.
VARSITY TRACK AND FIELD III (240059)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers junior level fundamentals of track and field. Emphasis is placed on refining skill development, rules, and game strategy. Upon completion, students should be able to participate in competitive track and field. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY TRACK AND FIELD IV (240060)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course introduces the advanced senior level skills and rules of track and field. Emphasis is placed on proper techniques and strategies for playing tennis. Upon completion, students should be able to play competitive track and field. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY VOLLEYBALL I (240061)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers freshman fundamentals of volleyball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive volleyball. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY VOLLEYBALL II (240062)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers more advanced volleyball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate in competitive volleyball. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY VOLLEYBALL III (240063)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course covers junior level fundamentals of volleyball. Emphasis is placed on refining skill development, rules, and game strategy. Upon completion, students should be able to participate in competitive volleyball. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.
VARSITY VOLLEYBALL IV (240064)  
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): none  
This course introduces the advanced senior level skills and rules of volleyball. Emphasis is placed on proper techniques and strategies for playing volleyball. Upon completion, students should be able to play competitive field. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY WRESTLING I (240065)  
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): none  
This course covers freshman fundamentals of wrestling. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in competitive wrestling. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY WRESTLING II (240066)  
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): none  
This course covers more advanced wrestling techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate in competitive wrestling. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY WRESTLING III (240067)  
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): none  
This course covers junior level fundamentals of wrestling. Emphasis is placed on refining skill development, rules, and game strategy. Upon completion, students should be able to participate in competitive wrestling. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.

VARSITY WRESTLING IV (240068)  
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): none  
This course introduces the advanced senior level skills and rules of wrestling. Emphasis is placed on proper techniques and strategies for playing wrestling. Upon completion, students should be able to play competitive field. PREREQUISITE: Completion of the required Lifelong Individualized Fitness Education course or an approved waiver substitution from the ALSDE Superintendent.
HEALTH (250002) SEMESTER
Grades: 9 to 12  Credit: 0.5
Prerequisite(s): none

This is a semester course which develops skill for accessing personal health information. It also provides information on basic health facts designed to create a positive lifetime attitude and the skills necessary to maintain excellent health. Topics studied include nutrition, exercise, family stress, mental health, and substance abuse. This course is required for graduation.

SPORTS OFFICIATING CERTIFICATION (240011)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): LIFE PE and age 16 or older or turn 16 during the academic school year

This course is an elective course that focuses on the professional philosophy, and professional requirements for officiating sports for athletic contests. This course will cover officiating football, basketball, wrestling, volleyball, soccer, baseball, track and field, and softball. Upon completion of the course students will be afforded the option to take certification exams for any of the sport components to become a restricted certified official with the Alabama High School Athletic Association at the middle/junior high school level.
COMPUTER SCIENCE PRINCIPLES, AP (520018)

Grades: 10 to 12  
Credit: 1.0

Prerequisite(s): Algebra I

This course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. Computer Science Principles, AP will give students the opportunity to use technology to address real-world problems and build relevant solutions. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.) Students may receive math credit for this course if they have successfully passed Algebra II with Trigonometry.

COMPUTER SCIENCE A, AP (520007)

Grades: 11 and 12  
Credit: 1.0

Prerequisite(s): Algebra II with Trigonometry or Algebra II with Trigonometry, Honors

Fee(s): $30

This college level computer science course emphasizes object-oriented programming methodology with a concentration on problem-solving and algorithm development. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.) Students may receive math credit for this course if they have successfully passed Algebra II with Trigonometry.

MATH LAB (210032ai)

Grades: 9 and 10  
Credit: 1.0

Prerequisite(s): Counselor approval

Students will work independently, in small groups, and online to increase proficiency in core mathematical skills, based on state standards, required for success in Algebra I and Geometry. The course focuses on computation skills and problem-solving, while also including application-based problems. This course is an elective and does not count as one of the four math courses required for graduation.

MATH SEMINAR I (210032aa)

Grade: 9  
Credit: 1.0

Prerequisite(s): Approval of instructor

This course is designed for highly-motivated math students who plan to participate in Geometry math team activities. There is a thorough review of Algebra I with major emphasis on using problem solving skills to solve challenging math problems. Students will participate in regional, state, national, and international competitions. Students will learn strategies for improving standardized test scores and will practice those strategies. Students will participate in project management activities necessary for writing, producing, and maintaining a variety of types of math contests. Technology skills such as installation, setup, implementation, and troubleshooting both hardware and software are developed in this course. Out of class hours are required to participate in math tournaments.
MATH SEMINAR II (210032ab)
Grade: 10        Credit: 1.0
Prerequisite(s): Approval of instructor and enrollment in Algebra II with Trigonometry, Honors

This course is designed for highly motivated math students who plan to participate in Algebra II/Trigonometry math team activities. There is a thorough review of Algebra I and Geometry with major emphasis on using problem solving skills to solve challenging math problems. Students will participate in regional, state, national, and international competitions. Students will learn strategies for improving standardized test scores and will practice those strategies. Students will participate in project management activities necessary for writing, producing, and maintaining a variety of types of math contests. Technology skills such as installation, setup, implementation, and troubleshooting both hardware and software are developed in this course. Out of class hours are required to participate in math tournaments.

MATH SEMINAR III (210032ac)
Grades: 10 to 12        Credit: 1.0
Prerequisite(s): Approval of instructor and enrollment in Precalculus, Honors or higher

This course is designed for above-average students in Honors Precalculus or above who are interested in participating in math team activities. The course includes a thorough review of advanced geometry, Algebra II, trigonometry, Precalculus, vectors, number theory, and probability. Students study additional concepts and problems not generally covered in other math courses. Activities are designed to develop speed and accuracy in solving challenging mathematics problems. Students will participate in regional, state, national, and international competitions. Students will learn strategies for improving standardized test scores and will practice those strategies. Students will participate in project management activities necessary for writing, producing, and maintaining a variety of types of math contests. Technology skills such as installation, setup, implementation, and troubleshooting both hardware and software are developed in this course. Out of class hours are required to participate in math tournaments. This course is weighted 10 points on a 100-point scale.
NOTE: Rehearsals and performances outside the regular school day may be required. Fees, uniforms, and travel may be required.

TRADITIONAL AND EMERGING ENSEMBLES: INTRODUCTION TO MARCHING BAND I (283103) SEMESTER AND TRADITIONAL AND EMERGING ENSEMBLES: INTRODUCTION TO CONCERT BAND I (283101) SEMESTER

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** none

*First semester is a one-half credit novice level, designed for students to experience instrumental music in a marching band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will develop coordination skills associated with marching while playing instruments and learn to connect musical experiences to other cultures and disciplines within and outside of the arts. **One-half credit will be earned toward the one credit LIFE PE graduation requirement.** Second semester is a one-half credit course, novice level, designed for students to experience instrumental music in a concert band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will study works of famous composers of concert band literature and learn to connect musical experiences to other cultures and disciplines within and outside of the arts.*

TRADITIONAL AND EMERGING ENSEMBLES: INTRODUCTION TO MARCHING BAND II (283203) SEMESTER AND TRADITIONAL AND EMERGING ENSEMBLES: INTRODUCTION TO CONCERT BAND II (283201) SEMESTER

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Traditional and Emerging Ensembles: Introduction to Marching Band I and Traditional and Emerging Ensembles: Introduction to Concert Band I or approval of instructor

*First semester is a one-half credit course, intermediate level, is designed for students to experience instrumental music in a marching band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will develop coordination skills associated with marching while playing instruments and learn to connect musical experiences to other cultures and disciplines within and outside of the arts. **One-half credit will be earned toward the one credit LIFE PE graduation requirement.** Second semester is a one-half credit course, intermediate level, designed for students to experience instrumental music in a concert band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will study works of famous composers of concert band literature and learn to connect musical experiences to other cultures and disciplines within and outside of the arts.*
TRADITIONAL AND EMERGING ENSEMBLES: INTRODUCTION TO MARCHING BAND III (283203) SEMESTER AND
TRADITIONAL AND EMERGING ENSEMBLES: INTRODUCTION TO CONCERT BAND III (283201) SEMESTER

Grades: 9 to 12  Credit: 1.0

Prerequisite(s): Traditional and Emerging Ensembles: Introduction to Marching Band II and Traditional and Emerging Ensembles: Introduction to Concert Band II or approval of instructor

First semester is a one-half credit course, proficient level, is designed for students to experience instrumental music in a marching band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will develop coordination skills associated with marching while playing instruments and learn to connect musical experiences to other cultures and disciplines within and outside of the arts. **One-half credit will be earned toward the one credit LIFE PE graduation requirement.** Second semester is a one-half credit course, proficient level, designed for students to experience instrumental music in a concert band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will study works of famous composers of concert band literature and learn to connect musical experiences to other cultures and disciplines within and outside of the arts.

TRADITIONAL AND EMERGING ENSEMBLES: INTRODUCTION TO MARCHING BAND IV (283403) SEMESTER AND
TRADITIONAL AND EMERGING ENSEMBLES: INTRODUCTION TO CONCERT BAND IV (283401) SEMESTER

Grades: 9 to 12  Credit: 1.0

Prerequisite(s): Traditional and Emerging Ensembles: Introduction to Marching Band III and Traditional and Emerging Ensembles: Introduction to Concert Band III or approval of instructor

First semester is a one-half credit course, advanced level, designed for students to experience instrumental music in a marching band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will develop coordination skills associated with marching while playing instruments and learn to connect musical experiences to other cultures and disciplines within and outside of the arts. **One-half credit will be earned toward the one credit LIFE PE graduation requirement.** Second semester is a one-half credit course, accomplished level, designed for students to experience instrumental music in a concert band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will study works of famous composers of concert band literature and learn to connect musical experiences to other cultures and disciplines within and outside of the arts.
TRADITIONAL AND EMERGING ENSEMBLES: INTRODUCTION TO MIXED CHORUS I (283600)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This is a one credit course, novice level, designed for students to explore choral music from a wide variety of cultures and time periods through academic study and performance. By creating, performing, and responding, students will develop basic vocal skills and sight-reading techniques. Allowing musical experiences to other cultures and disciplines within and outside of the arts, music history and theory are embedded so students may connect these experiences to historical relevance, contemporary issue, and self-reflection.

TRADITIONAL AND EMERGING ENSEMBLES: MIXED CHORUS II (283700)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Traditional and Emerging Ensembles: Introduction to Mixed Chorus I or approval of instructor

This is a one credit course, intermediate level, designed for students to explore choral music from a wide variety of cultures and time periods through academic study and performance. By creating, performing, and responding, students will develop basic vocal skills and sight-reading techniques. Allowing musical experiences to other cultures and disciplines within and outside of the arts, music history and theory are embedded so students may connect these experiences to historical relevance, contemporary issue, and self-reflection.

TRADITIONAL AND EMERGING ENSEMBLES: MIXED CHORUS III (283800)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Traditional and Emerging Ensembles: Mixed Chorus II or approval of instructor

This is a one credit course, proficient level, designed for students to explore choral music from a wide variety of cultures and time periods through academic study and performance. By creating, performing, and responding, students will develop basic vocal skills and sight-reading techniques. Allowing musical experiences to other cultures and disciplines within and outside of the arts, music history and theory are embedded so students may connect these experiences to historical relevance, contemporary issue, and self-reflection.

TRADITIONAL AND EMERGING ENSEMBLES: MIXED CHORUS IV (283900)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Traditional and Emerging Ensembles: Mixed Chorus III or approval of instructor

This is a one credit course, accomplished level, designed for students to explore choral music from a wide variety of cultures and time periods through academic study and performance. By creating, performing, and responding, students will develop basic vocal skills and sight-reading techniques. Allowing musical experiences to other cultures and disciplines within and outside of the arts, music history and theory are embedded so students may connect these experiences to historical relevance, contemporary issue, and self-reflection.
This half credit course will provide basic instruction in music. Students will explore how to create and produce music, responding, and connecting them to historical, current, and personal events. Students will have an introduction to history of music, and the ethical and appropriate use of the medium.
Peer Helper

PEER HELPER I (802207)

Grades: 9 to 12  Credit: 1.0

Prerequisite(s): Completion of screening packet (available from School Counselor) and School Counselor/sponsor approval

Students will learn how to help their peers in accordance with the National Peer Helpers Association. Students will learn communication skills, positive self-concept, leadership, study skills, conflict resolution skills, and peer tutoring. Students will have the opportunity to provide peer helping services to other students through school affiliated organizations. This class may require some before-school, after-school, and weekend time.

PEER HELPER II (802207aa)

Grades: 10 to 12  Credit: 1.0

Prerequisite(s): Completion of screening packet, available from School Counselor and School Counselor/sponsor approval

Students will continue to improve their communication, tutoring, and leadership skills. Students will provide peer-helping services to other students and help train other students to tutor.
SCIENCE LABORATORY ASSISTANT (220087aa)

SCIENCE LABORATORY ASSISTANT (220087ab) SEMESTER

Grades: 11 and 12       Credit: 1.0 or 0.5

Prerequisite(s): Chemistry and approval of instructor

This elective course is designed for students interested in learning about science laboratory procedures. Students will be responsible for setting up labs, conducting experiments, and taking down lab setups under the supervision of the teachers. Students will learn proper laboratory safety procedures. NOTE: This course does not fulfill a science requirement for graduation.
COMPARATIVE GOVERNMENT and POLITICS, AP (230044aa) SEMESTER

Grade: 12  Credit: 0.5
Prerequisite(s): US History II or US History, AP

This course is designed to provide students with the conceptual tools necessary to develop an understanding of some of the world’s diverse political structures and practices. Six countries are examined in detail: United Kingdom, China, Russia, Iran, Nigeria, and Mexico. This course is weighted 10 points on a 100-point scale. NOTE: Essay writing skills are required. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

CONTEMPORARY WORLD ISSUES and CIVIC ENGAGEMENT (230201) SEMESTER

Grades: 9 to 12  Credit: 0.5
Prerequisite(s): none

This course examines the role of the individual in the world community through the study of foreign and domestic issues, global economics, and human geography. Students will expand their skills in reading, listening, writing, researching, and analysis. Students will also learn the basics of historical research and technology-based research.

MICROECONOMICS, AP (230055aa) SEMESTER

Grade: 12  Credit: 0.5
Prerequisite(s): US History II or US History, AP

The purpose of an advanced placement course in microeconomics is to give students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the larger economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and of the role government in promoting greater efficiency and equity in the economy. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

PSYCHOLOGY I (230071)

Grades: 10 to 12  Credit: 1.0
Prerequisite(s): World History, or World History, Honors, or Human Geography, AP

This elective course is an introductory psychology class and will teach students how to use scientific methods to investigate human behavior. Course topics include: perception, learning theory, human motivation, emotion, stress, child development, normal and abnormal behaviors.

PSYCHOLOGY II (230071aa)

Grades: 11 to 12  Credit: 1.0
Prerequisite(s): Psychology I

This elective course is for those students who wish to pursue further study in psychology. Experiments and demonstrations will focus on additional topics including personality theory, human life span, group dynamics, and applied psychology.
PSYCHOLOGY, AP (230072)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): World History, or World History, Honors, or Human Geography, AP

The purpose of this advanced placement course is to introduce the students to the scientific study of human and animal behavior and mental processes. Major topics include: history and methods, biological basis of behavior, sensation and perception, states of consciousness, learning and memory, motivation and emotion, human development, personality, psychological disorders and treatment, and social psychology. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

SOCIOLOGY (230081)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): World History, or World History, Honors, or Human Geography, AP

This elective course is an introduction to many basic concepts used by sociologists—culture, society, rules, and relationships. It offers an introduction to the ways sociologists investigate, describe, and analyze social life. This course examines our multicultural society.

AFRICAN AMERICAN STUDIES (230032ab)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): World History, World History, Honors, or Human Geography, AP

This elective course is an interdisciplinary course that explores components of history, economics, politics, the arts, entertainment, sociology, and religion in relation to the African American experience.
**Additional Electives**

**ACT PREP (802209ab) SEMESTER**

*Grade:* 11  
*Credit:* 0.5  
*Prerequisite(s):* none

This course will prepare students to take exams for the ACT college entrance exam by providing an overview of the test, practical test taking strategies, and the opportunity to complete practice tests.

**STUDENT AIDE (OFFICE/LIBRARY) (802206)**

**STUDENT AIDE (OFFICE/LIBRARY) (802206ab) SEMESTER**

*Grades:* 10 to 12  
*Credit:* 1.0 or 0.5  
*Prerequisite(s):* Teacher approval and a grade average of C or higher

Students are given the opportunity to learn new skills in a supervised capacity in the library or office environment.

**STUDENT AIDE (TEACHER) (802106)**

**STUDENT AIDE (TEACHER) (802106 ab) SEMESTER**

*Grades:* 10-12  
*Credit:* 0.0  
*Prerequisite(s):* Teacher approval and a grade average of C or higher

Students are given the opportunity to assist faculty members in preparing classroom activities.

**EXPLORING COMPUTER SCIENCE (520043) COLUMBIA AND JEMISON ONLY**

*Grades:* 9 to 12  
*Credit:* 1.0  
*Prerequisite(s):* Algebra I or enrollment in Algebra I or higher level math

Exploring Computer Science is an introductory year-long high school computer science course for students in Grades 9-10 focused on foundational computer science concepts and computational practices. Students will be introduced to the breadth of the field of computer science through an exploration of engaging and accessible topics. The course is designed to focus on the conceptual ideas of computing and help students understand why certain tools or languages might be utilized to solve problems. The goal of Exploring Computer Science is to develop in students the computational practices of algorithm development, problem solving and programming within the context of problems that are relevant to the lives of today’s students.

**INTRODUCTION TO COMPUTER PROGRAMMING (260003ak)**

*Grades:* 9 to 12  
*Credit:* 1.0  
*Prerequisite(s):* none  
*Fee(s):* $20 SkillsUSA Dues (paid once a year, first semester - no waiver)

This course is an introduction to computer programming concepts and computational thinking. This course covers programming design and best practices using tools such as flowcharting and algorithmic development. Students will be taught to write programs using both textural and non-textual languages developing skills in using the basic structures needed in software design and scripting. Students will also explore the impact of computer science on society and career opportunities.
Career Academy Course Descriptions

Huntsville City Schools Career Academies provide students opportunities to engage in rigorous career relevant coursework utilizing state of the art technology while preparing for high-wage, high-skill, and high-demand careers. Students have the opportunity to earn industry certifications as well as dual enrollment and articulated college credits. These programs, several of which have earned national and international recognition, prepare students to be both college and career ready by integrating core academic skills with employability skills and current industry specific technology.

Huntsville City Schools offers the following pathways in each career clusters:

**Architecture/Construction**
- Building Science
- Engineering Design & Advanced Manufacturing
- Heavy Equipment Operations
- Welding

**Business Management and Preparation**
- Business Management and Administration

**Education and Training**
- Teaching and Training

**Finance**
- Finance

**Government and Public Administration**
- JROTC- Air Force
- JROTC- Army

**Health Science**
- Health Science: Medical Professions
- Biomedical Science

**Hospitality and Tourism**
- Culinary Arts
Human Services
- Barbering
- Esthetics and Spa Management
- Fashion
- Food, Wellness, and Dietetics
- Interior Design and Real Estate

Information Technology
- Cyber Security
- Entertainment Technology
- Project Lead the Way (PLTW) Computer Science

Manufacturing
- Industrial Robotics
- Precision Machining Program

Marketing
- Sports and Entertainment Marketing

STEM
- Engineering Pathway
- Green Power Innovations in Science and Technology

Work-Based Learning
- Cooperative Education

*Students may enroll in Career Academy courses not offered at their school of enrollment. HCS will provide transportation to students seeking to take Career Academy courses at another school. Students will be enrolled in the desired Career Academy program at the HCS school nearest to the student’s school of enrollment.*
Safety Instruction for Career/Technical Education

- **General.** Students participating in a Career/Technical Education lab or shop must be given instructions in safety. Each student is required to practice safety in every activity in which he/she may engage. Safety is included in each course of study as an important phase of training. Disregarding appropriate safety requirements and/or procedures may be grounds for dismissal from the Career/Technical program.

- **Insurance.** It is recommended that all students who participate in Career/Technical courses which include lab activities be encouraged to maintain an accident insurance policy for his/her protection.

- **Maintenance of Equipment and Rooms.** Safe buildings, grounds, and equipment shall be maintained to minimize accidents or injury to students, employees, and other citizens. Protection from such dangers as fire, natural disasters, mechanical, electrical malfunction, and other hazards shall be provided. The director/administrator shall make periodic evaluative reports concerning their adequacy in terms of student care and safety.

- **Safety Program.** The system has a district-wide safety and fire prevention program that coordinates the requirements of the fire marshal and civil defense program with appropriate school and community officials. Buildings shall be planned, equipped, and maintained in accordance with appropriate local, state, and federal building codes and safety regulations. Buildings shall be provided with fire and tornado alarm systems and workable fire extinguishers.

- **Safety Instruction.** Safety instruction, to include accident prevention, safety drills, and disaster procedures, shall be stressed at all grade levels. Expertise of fire prevention, experts, health officials, and other community services shall be incorporated into the total safety program. Special emphasis shall be placed upon supervision within classrooms and on requirements concerning safety precautions in such “high risk” areas as shop classes. Proper supervision of students and others using the buildings shall always be required.
To help prepare all students for the global workforce the College Board and Project Lead the Way (PLTW) have partnered on a program to encourage student participation in science, technology, engineering, and math (STEM) courses and build their interest in STEM degrees and careers. The program leverages the success of the College Board’s Advanced Placement Program (AP) and Project Lead the Way’s applied learning programs.

Our Project Lead the Way pathway, computer science, is a part of the AP + PLTW program.

Students who complete the requirements of their chosen pathway science (and earn qualifying scores on course-related exams and assessments) earn the AP + PLTW student recognition. This recognition demonstrates to colleges and employers that the student is ready for advanced course work and interested in careers in the discipline they studied.

To earn the recognition, the student must satisfactorily complete three courses in the pathway – one AP course; one PLTW course; and a third course, either AP or PLTW – and earn a qualifying score of 3 or higher on the AP Exam(s) and a score of Proficient or higher on the PLTW End of Course (EOC) assessment(s).

Listed under each of the computer science pathway, you will find a list of the qualifying Advanced Placement and PLTW courses.

Click here for more information on AP + PLTW from the College Board website.

Click here for more information on AP + PLTW from the PLTW website.
Architecture/Construction Cluster

Building Sciences Pathway

This career academy is designed for the student interested in pursuing a career in the construction field. The program offers students a wide introduction to all areas of the construction trades. Students will learn safety procedures, blueprint comprehension, tool usage, and carpentry knowledge. These skills will then be applied to learning, maintenance, operations, and installation and repair which are foundational to courses related to careers in the architecture and construction and manufacturing industries. This course is not a prerequisite for entering a specific pathway.

Students are required to submit a “Huntsville City Schools Career and Technical Education Traveling Programs Application” to be accepted into this program.

Physical Career Academy Location(s) Where Available*

<table>
<thead>
<tr>
<th>Columbia</th>
<th>Grissom</th>
<th>HCT</th>
<th>Huntsville City Schools Annex</th>
<th>Jemison</th>
<th>Lee</th>
<th>New Century</th>
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9th Grade

Career Preparedness (400025)
AND
1st Semester
Architecture, Construction, and Manufacturing (430004)
AND
2nd Semester
NCCER Building Construction 1: Construction Framing (412101)

10th Grade

1st Semester
NCCER Building Construction 2: Site Preparation (412102)
AND
2nd Semester
NCCER Building Construction 3: Construction Finishing (412103)

11th Grade

1st Semester
NCCER Carpentry 1 (432301)
AND
2nd Semester
NCCER Carpentry 2 (432302)

12th Grade

1st Semester
NCCER Carpentry 3 (432303)
AND
2nd Semester
Senior Career Pathway Project: Architecture and Construction (430129)

Certification Opportunities
- NCCER Core (all modules)
- NCCER Building Construction Level 1
- NCCER Building Construction Level 1+
- NCCER Carpentry Level 1

CAREER PREPAREDNESS (400025)

Grade: 9
Credit: 1.0
Prerequisite(s): none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.
ARCHITECTURE & CONSTRUCTION MANUFACTURING (430004)
Grade: 9  Credit: 1.0
Prerequisite(s): Career Preparedness
Fee(s): $30 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $50 total
A one-credit course that introduces students to core knowledge and skills in the areas of design, preconstruction, construction, maintenance, operations, and installation and repair which are foundational to courses related to careers in the architecture and construction and manufacturing industries. This course is not a prerequisite for entering a specific pathway.

NCCER BUILDING CONSTRUCTION 1: CONSTRUCTION FRAMING (412101)
Grade: 9  Credit: 1.0
Prerequisite(s): none
Fee(s): $30 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $50 total
A one-credit course designed to complete all Core requirements for NCCER Core credentialing and to facilitate students’ understanding of the framing components of typical structures. Emphasis is placed on safety, floor systems, wall and ceiling framing, stair construction, and roof framing.

NCCER BUILDING CONSTRUCTION 2: SITE PREPARATION (412102)
Grade: 10  Credit: 1.0
Prerequisite(s): none
Fee(s): $30 course fee, $20 SkillsUSA Dues (paid once a year, first semester - no waiver) $50 total
A one-credit course designed to facilitate students’ understanding of the first phases of construction including types of structures and their uses. This course meets partial requirements for NCCER Construction Technology credentials.

NCCER BUILDING CONSTRUCTION 3: CONSTRUCTION FINISHING (412103)
Grade: 10  Credit: 1.0
Prerequisite(s): none
Fee(s): $30 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $50 total
A one-credit course designed to provide instruction on all common exterior and interior finishing phases of a structure. This course meets partial requirements for NCCER Construction Technology.

NCCER CARPENTRY 1 (432301)
Grade: 11  Credit: 1.0
Prerequisite(s): none
Fee(s): $30 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $50 total
This is the first of 3 required one-credit courses in the Carpentry pathway. It is designed to complete all core requirements for NCCER Core credentialing and to provide students with fundamental knowledge and skills emphasizing use of hand and power tools, building materials, fasteners, adhesives, and flooring systems needed for NCCER Carpentry Level I Credentialing.
**NCCER CARPENTRY 2: (432302)**

Grade: 11  Credit: 1.0  
Prerequisite(s): none  
Fee(s): $30 course fee, $20 SkillsUSA Dues (paid once a year, first semester - no waiver) $50 total  

A one-credit course designed to provide students with advanced knowledge and skills emphasizing floor wall, ceiling, and basic construction layout needed for NCCER Carpentry Level I Credentialing.

**NCCER CARPENTRY 3: (432303)**

Grade: 12  Credit: 1.0  
Prerequisite(s): none  
Fee(s): $30 course fee, $20 SkillsUSA Dues (paid once a year, first semester - no waiver) $50 total  

A one-credit course designed to provide students with advanced knowledge, skills and practice emphasizing wall, ceiling, and roof framing, windows, entrance doors, and stair layout needed for NCCER Carpentry Level I Credentialing.

**SENIOR CAREER PATHWAY PROJECT – ARCHITECTURE AND CONSTRUCTION (430129)**

Grade: 12  Credit: 1.0  
Prerequisite(s): none  
Fee(s): $30 course fee, $20 SkillsUSA Dues (paid once a year, first semester - no waiver) $50 total  

A one-credit course designed to provide instruction on all common exterior and interior finishing phases of a structure. This course meets partial requirements for NCCER Construction Technology.
Engineering Design and Advanced Manufacturing Pathway

This program is designed for students interested in engineering and related advanced manufacturing fields. Students will gain valuable knowledge and develop marketable skills that will greatly benefit them in a future engineering or manufacturing profession. Students are taught how to design, build, and test the designs in real-world situations. These courses require higher-level thinking skills to solve open-ended design and manufacturing problems. Emphasis is placed on mechanical and 3D design.

**Students are required to submit a “Huntsville City Schools Career and Technical Education Traveling Programs Application” to be accepted into this program.**

### Physical Career Academy Location(s) Where Available*

<table>
<thead>
<tr>
<th>Location</th>
<th>9th Grade</th>
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</tr>
</tbody>
</table>

#### 9th Grade
- Career Preparedness (400025)
  - 1st Semester: Introduction to Drafting Design (410005)
  - 2nd Semester: Intermediate Drafting Design (430010)

#### 10th Grade
- 1st Semester: Advanced Drafting Design (430011)
- 2nd Semester: Engineering Design and Advanced Manufacturing (560116)

#### 11th Grade
- 1st Semester: 3D Solid Model Design I (430016)
- 2nd Semester: Advanced Engineering Design and Advanced Manufacturing (560117)

#### 12th Grade
- 1st Semester: CTE Lab in Architecture and Construction (432910)
- 2nd Semester: Senior Career Pathway Project-Architecture & Construction (430129)

### CAREER PREPAREDNESS (400025)

**Grade:** 9  
**Credit:** 1.0  
**Prerequisite(s):** none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.
INTRODUCTION DRAFTING DESIGN (410005)
Grade: 9   Credit: 1.0
Prerequisite(s): none
Fee(s): $35 course fee, $15 TSA Dues (paid once a year, first semester - no waiver) $50 total

A one-credit course designed to provide students with instruction and experiences in computer-aided drafting (CAD) functions and techniques using CAD software applications.

INTERMEDIATE DRAFTING DESIGN (430010)
Grade: 9   Credit: 1.0
Prerequisite(s): Introduction to Drafting Design
Fee(s): $30 course fee, $15 TSA fee (paid once a year, first semester - no waiver) $45 total

A one-credit course designed to further the development of students’ knowledge regarding the use of advanced drafting design practices and procedures. The prerequisite for this course is Introduction to Drafting Design.

ADVANCED DRAFTING DESIGN (430011)
Grade: 10   Credit: 1.0
Prerequisite(s): Intermediate Drafting Design
Fee(s): $30 course fee, $15 TSA fee (paid once a year, first semester - no waiver) $45 total

A one-credit course for students who are interested in engineering and related mechanical drafting areas. The prerequisite for this course is Intermediate Drafting Design.

ENGINEERING DESIGN AND ADVANCED MANUFACTURING (560116)
Grade: 10   Credit: 1.0
Prerequisite(s): Intermediate Engineering Design
Fee(s): $30 course fee, $15 TSA Fee (paid once a year, first semester - no waiver) $45 total

Students will engage in the hands-on engineering design and manufacturing processes associated with Additive Manufacturing: fused deposition, laser sintering and composite layup. Students will continue advanced CAD drafting by designing and then creating parts both for understanding and to meet a customer or design challenge chosen and apply for CAD certification. The customer interface, which can be with an industry partner, will provide the student with skills in designing to meet requirements – essential in the career field. Students work to create a more advanced F24 race car utilizing advanced manufacturing technologies and compete at GreenpowerUSA events.

3D SOLID MODEL DESIGN I (430016)
Grade: 11   Credit: 1.0
Prerequisite(s): none
Fee(s): $30 course fee, $15 TSA Dues (paid once a year, first semester - no waiver) $45 total

A one-credit course intended to introduce students to three-dimensional modeling utilizing three-dimensional capabilities of CAD software. The prerequisite for this course is Intermediate Drafting Design.
ADVANCED ENGINEERING DESIGN AND MANUFACTURING (560117)
Grade: 11  Credit: 1.0
Prerequisite(s): Engineering Design and Manufacturing
Fee(s): $30 course fee, $15 TSA Fee (paid once a year, first semester - no waiver) $45 total

Students will engage in a personally tailored engineering design and manufacturing project associated with Additive Manufacturing as a capstone event. Students will be exposed to state-of-the-art engineering design concepts such as 3D scanning and advanced CAD software tools. Students will add to their knowledge base with information detailing the manufacturing process and go in depth into composites by creating molds, working with resins and polymers, and investigating effects of temperature and pressure. Students work to create a customized F24 race car utilizing advanced manufacturing technologies and compete at GreenpowerUSA events.

CTE LAB IN ARCHITECTURE AND CONSTRUCTION (432910)
Grade: 12  Credit: 1.0
Prerequisite(s): Advanced Engineering Design and Manufacturing
Fee(s): $30 course fee, $15 TSA Dues (paid once a year, first semester - no waiver) $45 total

This one-credit course is an extended laboratory experience to address the advancement and specialization of careers within Architecture and Construction through individualized or small group instruction. This course allows students to enhance the essential and intermediate skills learned through program courses within the career cluster and prepare for industry credentialing opportunities.

SENIOR CAREER PATHWAY PROJECT – ARCHITECTURE AND CONSTRUCTION (430129)
Grade: 12  Credit: 1.0
Prerequisite(s): Advanced Engineering Design and Manufacturing
Fee(s): $30 course fee, $15 TSA Dues (paid once a year, first semester - no waiver) $45 total

A one-credit course designed to provide instruction on all common exterior and interior finishing phases of a structure. This course meets partial requirements for NCCER Construction Technology.
Heavy Equipment Operation Pathway

This career academy provides students with the opportunity to obtain hands-on training by using simulators in the following areas: grading, landscaping, excavation, tractor operation, bulldozer operation, backhoe operation, crane operation, and forklift operation. Students will also learn the fundamentals of entrepreneurship and small business management.

Students are required to submit a “Huntsville City Schools Career and Technical Education Traveling Programs Application” to be accepted into this program.

Physical Career Academy Location(s) Where Available*

<table>
<thead>
<tr>
<th>Columbia</th>
<th>Grissom</th>
<th>Huntsville High</th>
<th>Jemison</th>
<th>Lee</th>
<th>New Century</th>
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</thead>
</table>
| Career Preparedness (400025) | **1st Semester**  
Architecture, Construction, and Manufacturing (430004)  
AND  
**2nd Semester**  
NCCER Heavy Equipment Operations 1 (570062) | **1st Semester**  
NCCER Heavy Equipment Operations 2 (570063)  
AND  
**2nd Semester**  
NCCER Heavy Equipment Operations 3 (570064) | **1st Semester**  
CTE Lab in Architecture and Construction (432910)  
AND  
**2nd Semester**  
Senior Career Pathway Project-Transportation, Distribution, and Logistics (570080) | • NCCER Heavy Equipment Operations Level 1 |

**CAREER PREPAREDNESS (400025)**

Grade: 9  
Credit: 1.0  
Prerequisite(s): none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

**ARCHITECTURE & CONSTRUCTION MANUFACTURING (430004)**

Grade: 10  
Credit: 1.0  
Prerequisite(s): Career Preparedness  
Fee(s): $30 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $50 total

A one-credit course that introduces students to core knowledge and skills in the areas of design, preconstruction, construction, maintenance, operations, and installation and repair which are foundational to courses related to careers in the architecture and construction and manufacturing industries. This course is not a prerequisite for entering a specific pathway.
NCCER HEAVY EQUIPMENT OPERATIONS 1 (570062)
Grade: 10  Credit: 1.0
Prerequisite(s): NONE
Fee(s): $25 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $45 total

This is the first of three required one-credit courses in the Heavy Equipment Operations pathway. It is designed to complete all core requirements for NCCER Core credentialing and to provide students with fundamental knowledge and skills emphasizing safety, tools, measuring, blueprint reading and layout, and basic heavy equipment operation techniques leading to NCCER Heavy Equipment Operations Level 1 credentialing.

NCCER HEAVY EQUIPMENT OPERATIONS 2 (570063)
Grade: 11  Credit: 1.0
Prerequisite(s): NCCER Heavy Equipment Operations 1
Fee(s): $25 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $45 total

This is the second of three required one-credit courses in the Heavy Equipment Operations pathway. It is designed to provide students with practice and skills development emphasizing safety, applications and intermediate equipment operations techniques leading to NCCER Heavy Equipment Operations Level 1 credentialing.

NCCER HEAVY EQUIPMENT OPERATIONS 3 (570064)
Grade: 11  Credit: 1.0
Prerequisite(s): NCCER Heavy Equipment Operations 1 & 2
Fee(s): $25 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $45 total

This is the third of three required one-credit courses in the Heavy Equipment Operations pathway. It is designed to provide students with practice and skills development emphasizing safety, site layout, reading civil drawings, understanding soils leading to NCCER Heavy Equipment Operations Level 1 credentialing.

CTE LAB IN ARCHITECTURE AND CONSTRUCTION (432910)
Grade: 12  Credit: 1.0
Prerequisite(s): NCCER Heavy Equipment Operations 3
Fee(s): $25 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $45 total

This one-credit course is an extended laboratory experience to address the advancement and specialization of careers within Architecture and Construction through individualized or small group instruction. This course allows students to enhance the essential and intermediate skills learned through program courses within the career cluster and prepare for industry credentialing opportunities.

SENIOR CAREER PATHWAY PROJECT – ARCHITECTURE AND CONSTRUCTION (430129)
Grade: 12  Credit: 1.0
Prerequisite(s): NCCER Heavy Equipment Operations 3
Fee(s): $25 course fee, $20 SkillsUSA dues (dues are paid once a year, first semester - no waiver) $45 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.
This career academy provides students with a fundamental understanding of blueprint reading, weld symbols and weld joints, rules for safety, and identification of shop equipment. Students acquire knowledge for safe operation of oxy-fuel cutting and shielded metal arc welding processes. Upon completion of this course, students are able to interpret lines, views, and dimensions of weld joint configurations and weld symbols; identify oxy-fuel cutting equipment and components; determine proper setup of equipment for application; identify safety hazards and welding equipment related to shielded metal arc welding; and make quality welds with E-6010 and E-7018 electrodes in the flat, horizontal, vertical, and overhead positions. During the second year of enrollment, students will learn basic principles and applications of M.I.G. welding and G.T.A.W. process, including machine operation and control, electrode selection and care, filler rod types, and regulator settings. They will also learn how to determine the type of power source required which includes type of current and polarity, selection of gas type and gas flow rates, torches, and electrodes.

Students are required to submit a “Huntsville City Schools Career and Technical Education Traveling Programs Application” to be accepted into this program.

<table>
<thead>
<tr>
<th>Physical Career Academy Location(s) Where Available*</th>
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<tbody>
<tr>
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<td>Career Preparedness (400025)</td>
<td>1st Semester Architecture &amp; Construction Manufacturing (430004) AND 2nd Semester NCCER Welding 1 (432901)</td>
<td>1st Semester NCCER Welding 2 (432902) AND 2nd Semester NCCER Welding 3 (432903)</td>
<td>1st Semester NCCER Welding 4 (432904) AND 2nd Semester Senior Career Pathway Project (430129)</td>
<td>NCCER Core (all modules) NCCER Welding Level 1 NCCER Welding Level 1+ AWS Certifications (one or more areas) o SMAW 3-G uphill progression D1.1 o GTAW 3-G uphill progression (steel) o FCAW 3-G uphill progression D1.1 o GTAW 3-G uphill progression (aluminum) D1.2 o GMAW 3-G uphill progression D1.1</td>
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</table>
CAREER PREPAREDNESS (400025)
Grade: 9  Credit: 1.0
Prerequisite(s): none
A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

ARCHITECTURE & CONSTRUCTION MANUFACTURING (430004)
Grade: 10  Credit: 1.0
Prerequisite(s): Career Preparedness
Fee(s): $30 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $50 total
A one-credit course that introduces students to core knowledge and skills in the areas of design, preconstruction, construction, maintenance, operations, and installation and repair which are foundational to courses related to careers in the architecture and construction and manufacturing industries. This course is not a prerequisite for entering a specific pathway.

NCCER WELDING 1 (432901)
Grade: 10  Credit: 1.0
Prerequisite(s): none
Fee(s): $30 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $50 total
This is the first of four required one-credit courses in the Welding Technologies Pathway. It is designed to complete all core requirements for NCCER Core credentialing and to provide students with fundamental knowledge and skills emphasizing use of hand tools, power tools, welding theory and practice for use in the manufacturing and construction industry. This entry-level course is required for NCCER Welding Level I credentialing and may be taken as one of the optional technical courses with credit applied to the Industrial Maintenance Technology area. Personal protective clothing is required for this course.

NCCER WELDING 2 (432902)
Grade: 11  Credit: 1.0
Prerequisite(s): NCCER Welding 1
Fee(s): $30 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $50 total
This is the second of four required one-credit courses in the welding technologies pathway. Topics include: basic shielded metal arc welding, blueprint reading, weld symbols and joint identification and print reading. Emphasis is placed on fundamental knowledge guided practice and NCCER Welding Level I requirements. Personal protective clothing is required for this course.
NCCER WELDING 3 (432903)
Grade: 11  Credit: 1.0
Prerequisite(s): NCCER Welding 2
Fee(s): $30 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $50 total

This is the third of four required one-credit courses in the Welding Technologies pathway. It is designed to provide students with theory, practice, and skills development. Emphasis is placed on application and operation of shielded metal arc welding (SMAW) equipment in the vertical, 3-F and overhead, 4-F positions leading to NCCER Welding Level I Credentialing. Personal protective clothing is required for this course.

NCCER WELDING 4 (432904)
Grade: 12  Credit: 1.0
Prerequisite(s): NCCER Welding 3
Fee(s): $30 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $50 total

This is the fourth of four required one-credit courses in the Welding Technologies pathway. It is designed to provide students with additional practice, and skills development. Emphasis is placed on application and operation of shielded metal arc welding (SMAW) equipment and mastery in the vertical, 3-F and overhead, 4-F positions leading to NCCER Welding Level I credentialing and AWS Plate certification. Personal protective clothing is required for this course.

SENIOR CAREER PATHWAY PROJECT (430129)
Grade: 12  Credit: 1.0
Prerequisite(s): NCCER Welding 4
Fee(s): $30 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $50 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.
Business Management and Preparation Cluster

This career academy provides students with the opportunity to improve skills with self-paced, interactive, and engaging online training. It will provide students with the 21st century technology skills necessary to acquire certification and be competitive in today’s rapidly evolving workplace.

### Physical Career Academy Location(s) Where Available

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### Business Management and Administration Pathway

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<tr>
<td>10th</td>
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<td>11th</td>
<td>Multimedia Design (410016)</td>
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<td>OR Law in Society (410023)</td>
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<td>12th</td>
<td>Multimedia Publications (410017)</td>
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<td>OR Entrepreneurship (400017)</td>
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### CAREER PREPAREDNESS (400025)

**Grade:** 9  
**Credit:** 1.0  
**Prerequisite(s):** none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.
FOUNDATIONS OF BUSINESS LEADERSHIP (450009)
Grade: 10  Credit: 1.0
Prerequisite(s): Business, Communication, and Technology
Certification Opportunity: MOS
Fee(s): $10 FBLA dues (paid once a year, first semester - no waiver)

Foundations of Business Leadership is a one-credit course. Students develop an understanding of how academic skills in mathematics, economics, and written and oral communications are integral components of success in any career. Students examine leadership and management materials to determine impact on business and industry and legal and ethical behavior, determine how resources are managed to achieve company goals, and identify employability and essential skills needed to obtain a career and be successful in the workplace. The student organization, Future Business Leaders of America (FBLA), is an integral part of the curriculum and FBLA projects will be included in the course.

MULTIMEDIA DESIGN (410016)
Grade: 11  Credit: 1.0
Prerequisite(s): Foundations in Business Leadership
Certification Opportunity: ACA
Fee(s): $10 FBLA dues (paid once a year, first semester - no waiver)

A one-credit course designed to provide students with hands-on skills involving graphic design, digital photography, Web publishing, and digital video production. Students use various hardware peripherals and software for completing documents. The student organization, Future Business Leaders of America (FBLA), is an integral part of the curriculum and FBLA projects will be included in the course.

LAW IN SOCIETY (410023)
Grade: 11  Credit: 1.0
Prerequisite(s): Foundations of Business Leadership
Certification Opportunity: MOS
Fee(s): $10 FBLA dues (paid once a year, first semester - no waiver)

A one-credit course designed to acquaint students with the basic legal principles common to business and personal activities. This course is an overview of criminal, civil, contract, and consumer law. The student organization, Future Business Leaders of America (FBLA), is an integral part of the curriculum and FBLA projects will be included in the course.

MULTIMEDIA PUBLICATIONS (410017)
Grade: 12  Credit: 1.0
Prerequisite(s): Multimedia Design or Law in Society
Fee(s): $10 FBLA dues (paid once a year, first semester - no waiver)

A one-credit course designed to provide students with the ability to utilize digital equipment and multimedia digital imaging software, produce interactive media projects, and develop publication layouts. Students use various hardware peripherals as well as the Internet for integrating skills to create a variety of publications. The student organization, Future Business Leaders of America (FBLA), is an integral part of the curriculum and FBLA projects will be included in the course.
ENTREPRENEURSHIP (400017)

Grades: 10 to 12  Credit: 1.0

Prerequisite(s): Career Preparedness or a career academy introductory course

Fee(s): $10 FBLA dues (paid once a year, first semester - no waiver)

This is a specialized business course designed to provide students with the skills needed to effectively organize, develop, create, and manage a business. This course includes business management and entrepreneurship, communication and interpersonal skills, economics, and professional development foundations.
**Education and Training Cluster**

<table>
<thead>
<tr>
<th>Teaching and Training Pathway</th>
</tr>
</thead>
</table>

This program provides students with knowledge and skills needed for teaching and professional training consultant careers. Courses provide an overview of teaching and learning theories; curriculum development; teaching techniques; instructional resources and the use of technology; types of assessments; classroom management strategies; and ethics and professionalism.

**Students are required to submit a Huntsville City Schools Career and Technical Education Traveling Programs Application to be accepted into this program.**

<table>
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<tbody>
<tr>
<td>Career Preparedness (400025)</td>
<td><strong>1st Semester</strong> Education and Training (460009) AND <strong>2nd Semester</strong> Teaching I (460011)</td>
<td><strong>1st Semester</strong> Teaching II (460012) AND <strong>2nd Semester</strong> Education Leadership (460031)</td>
<td><strong>1st Semester</strong> Education Training and Internship (460015) AND <strong>2nd Semester</strong> Senior Career Pathway Project-Education &amp; Training (460032)</td>
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**CAREER PREPAREDNESS (400025)**

- **Grade:** 9  
- **Credit:** 1.0  
- **Prerequisite(s):** none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

**EDUCATION AND TRAINING (460009)**

- **Grade:** 10  
- **Credit:** 1.0  
- **Prerequisite(s):** none

- **Fee(s):** $15 FCCLA dues (paid once a year, first semester - no waiver) $15 FTA dues (paid once a year, first semester - no waiver) total $30

A one-credit foundation course designed for students who are interested in pursuing a career in education. The required school-based laboratory is a well-equipped classroom. This course is a prerequisite for Teaching I.
TEACHING I (460011)
Grade: 10       Credit: 1.0
Prerequisite(s): Education and Training
Fee(s): $15 FCCLA dues (paid once a year, first semester - no waiver) $15 FTA dues (paid once a year, first semester - no waiver) total $30

A one-credit course that aids students in implementing the teaching and learning processes. The prerequisite for this course is Education and Training. The required school-based laboratory is a well-equipped classroom.

TEACHING II (460012)
Grade: 11       Credit: 1.0
Prerequisite(s): Teaching I
Fee(s): $15 FCCLA dues (paid once a year, first semester - no waiver) $15 FTA dues (paid once a year, first semester - no waiver) total $30

A one-credit course that provides students with advanced knowledge and skills used in the education field. The prerequisites for this course are Education and Training and Teaching I. The required school-based laboratory is a well-equipped classroom.

EDUCATION AND LEADERSHIP (460031)
Grade: 11       Credit: 1.0
Prerequisite(s): Education and Training
Fee(s): $15 FCCLA dues (paid once a year, first semester - no waiver) $15 FTA dues (paid once a year, first semester - no waiver) total $30

A one-credit course designed for students who are interested in pursuing a career in administration and supervision in the educational field. The prerequisite for this course is Education and Training. The required school-based laboratory is a well-equipped classroom.

EDUCATION TRAINING AND INTERNSHIP (460015)
Grade: 12       Credit: 1.0
Prerequisite(s): Teaching II and approval of instructor
Fee(s): $15 FCCLA dues (paid once a year, first semester - no waiver) $15 FTA dues (paid once a year, first semester - no waiver) total $30

A one-credit course designed for students interested in pursuing an internship experience in an educational field. Students who have completed Teaching II are eligible to enroll in the Education and Training Internship. A school-based laboratory (actual classroom providing grade level subject-matter instruction) is required for the internship.

SENIOR CAREER PATHWAY PROJECT-EDUCATION AND TRAINING (460032)
Grade: 10       Credit: 1.0
Prerequisite(s): Education and Training Internship
Fee(s): $15 FCCLA dues, $15 FTA dues (dues are paid once a year, first semester - no waiver) $30 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.
Finance Cluster

Finance Pathway

The finance program prepares learners for careers in financial and investment planning, banking, insurance, and business financial management. Career opportunities are available in every sector of the economy and requires individuals working in finance to have strong computation, analytical, and interpersonal skills. Rigorous instruction is provided to equip learners with knowledge and skills for college and career readiness.

<table>
<thead>
<tr>
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<tbody>
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<tr>
<td>Career Preparedness (400025)</td>
<td>Accounting (470012)</td>
<td>Advanced Accounting (470013)</td>
<td>Banking and Financial Services (470011)</td>
<td>Microsoft Office</td>
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<td>• Excel Expert</td>
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<td>• Microsoft Office Specialist (MOS)</td>
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Two of the following areas are REQUIRED:  
• Access  
• Excel  
• Outlook  
• PowerPoint  
• SharePoint  
• Word  
• Adobe Certified Associate (ACA)

CAREER PREPAREDNESS (400025)  
Grade: 9  
Credit: 1.0  
Prerequisite(s): none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

ACCOUNTING (470012)  
Grade: 10  
Credit: 1.0  
Prerequisite: Business Communication and Technology  
Fee(s): $10 FBLA dues (paid once a year, first semester - no waiver)

A one-credit course designed to help students understand the basic principles of the accounting cycle. Emphasis is placed on basic accounting, analyzing, and recording business transactions, preparing, and interpreting financial statements, and performing banking and payroll activities. The student organization, Future Business Leaders of America (FBLA), is an integral part of the curriculum and FBLA projects will be included in the course.
ADVANCED ACCOUNTING (470013)
Grade: 11  Credit: 1.0
Prerequisite(s): Accounting
Fee(s): $10 FBLA dues (paid once a year, first semester - no waiver)

A one-credit course designed to provide students with an increased emphasis on accounting principles and techniques for solving business problems and making financial decisions. The prerequisite for this course is Accounting. The student organization, Future Business Leaders of America (FBLA), is an integral part of the curriculum and FBLA projects will be included in the course.

BANKING AND FINANCIAL SERVICES (470011)
Grade: 12  Credit: 1.0
Prerequisite(s): Advanced Accounting
Certification Opportunity: MOS
Fee(s): $10 FBLA dues (paid once a year, first semester - no waiver)

A one-credit course designed to help students develop skills related to banking and related services as they process customer transactions, maintain cash drawer, process documents, and respond to customer requests to provide other customer services. The student organization, Future Business Leaders of America (FBLA), is an integral part of the curriculum and FBLA projects will be included in the course.
The mission of Air Force Junior ROTC (AFJROTC) is to “Develop citizens of character, dedicated to serving their nation and community.” Cadets are given hands on leadership experience running the Corps, through staff duties requiring progressively higher degrees of responsibility each year. Benefits include (a) Opportunity to develop leadership and management skills; (b) Opportunity to become a part of a dynamic organization which promotes camaraderie, a sense of belonging, pride, and self-confidence; (c) Opportunity to study diverse subjects; (d) Receive up to five units of credit toward graduation requirements; (e) Receive credit which can be substituted for PE and Career Preparedness; (f) Improve chances of selection for ROTC or service academy scholarship; (g) Credit for one year of AFJROTC in college; (h) Higher pay grade on enlistment in one of the military services. Enrollment in AFJROTC does not subject student to any military obligation, nor is the program intended to be a recruiting instrument for the military services.

Each course includes instruction in Aerospace Science (AS), Leadership Education (LE) and a Wellness Program. The Wellness Program is an integral part of the JROTC program that represents 20 percent of the overall JROTC grade. It is designed to offer all cadets a way to make significant improvement in their health and to promote a more active and healthier lifestyle. Cadets are given individual training programs based on national standards by age and gender. It identifies areas of improvement and incorporates a physical training program to reach individual goals to be achieved during the school year (36 weeks). Students receive one credit for each year of AFJROTC (Aerospace Science), satisfying graduation requirements as follows:

- **Physical Education**: Successful completion of any year-long ROTC course (except AS-500) satisfies the required PE LIFE credit.

- **Elective**: Up to three additional credits

AFJROTC students receive an embedded credit for Career Preparedness with the completion of AFJROTC courses LE-100: Citizenship, Character, and Air Force Tradition and LE-300: Life Skills and Career Opportunities. The two courses are embedded within the Aerospace (AS) courses and together the two AFJROTC courses prepare students with content knowledge and skills in the areas of career development, academic planning, computer skill application, and financial literacy. LE-100 covers the areas of personal decision making and technology skill applications. LE-300 covers the areas of technology skill applications, managing finances and budgeting, academic planning, and career development, saving and investing, banking and financial institutions, credit and debt, and risk management and insurance. Also, the courses meet the 20-hour online experience requirement. The successful completion of these courses satisfies the graduation requirement as follows:

- **Career Preparedness**: Successful completion of LE-100 and LE-300 satisfies the required Career Preparedness credit.

Uniforms: Uniforms must be worn once each week and cadets must adhere to USAF grooming standards while in uniform. Uniforms and academic materials are provided by the U. S. Air Force.
### AS-100: LEADERSHIP AND AVIATION HISTORY (480001)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** none  
**Fee(s):** $30 course fee

*This is an aviation history course focusing on the development of flight throughout the centuries. It starts with ancient civilizations then progresses through time to modern day. The emphasis is on civilian and military contributions to aviation; the development, modernization, and transformation of the Air Force; and a brief astronomical and space exploration history. It is interspersed with concise overviews of the principles of flight to include basic aeronautics, aircraft motion and control, flight power, and rockets. Students are introduced to military customs, courtesies, and the fundamentals of drill and leadership. Character education emphasizes the importance of honesty, integrity, reliability, and respect for authority. The AS-100 wellness program incorporates the 18 LIFE course standards and includes a computer based, personalized 36-week Personal Wellness Program for each cadet.*
AS-200: LEADERSHIP AND SCIENCE OF FLIGHT (480002)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none
Fee(s): $30 course fee
This course is heavily science oriented. It includes a comprehensive study of the aerospace environment, meteorology, propulsion systems, principles of flight, navigation, and aerospace physiology. Students are introduced to military customs, courtesies, and the fundamentals of drill. Leadership education emphasizes the importance of honesty, integrity, reliability, and respect for authority. Topics include study skills, gang, and drug awareness. The wellness program incorporates the 18 LIFE course standards and includes a computer-based, personalized 36-Week Personal Wellness Program for each cadet.

AS-220: LEADERSHIP AND CULTURAL STUDIES (480031)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none
Fee(s): $30 course fee
This course introduces students to the world’s cultures through the study of world affairs, regional studies, and cultural awareness. It delves into history, geography, religions, languages, culture, political systems, economics, social issues, environmental concerns, and human rights. It looks at major events and significant figures that have shaped each region. Leadership education includes: effective writing and speaking skills, effective listening, understanding individual and group behavior, and conflict resolution. Application is made through staff duties. The wellness program continues with a personalized 36-week plan for each cadet.

AS-300: LEADERSHIP AND EXPLORATION OF SPACE (480029)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none
Fee(s): $30 course fee
This course is heavily science oriented. The first semester begins with the study of the space environment from the earliest days of interest in astronomy and early ideas of the heavens, through the Renaissance, and on into modern astronomy. The second semester continues with a study of rocketry, spacecraft, orbital mechanics, space travel, space programs, robotics in space and the commercial uses of space. Leadership education includes: management theories, stress management, decision making, project management, with emphasis placed on applying these theories through staff duties. The wellness program continues and includes a computer-based, personalized 36-week Personal Wellness Program for each cadet.
AS-400: LEADERSHIP AND MANAGEMENT OF THE CADET CORPS AND FINANCIAL EDUCATION (480030)
Grade: 12  Credit: 1.0
Prerequisite(s): Two years of AFJROTC and SASI approval
Fee(s): $30 course fee

This course provides “hands-on” experience in management and leadership by allowing cadets to perform the various staff functions associated with running the cadet corps. They also serve as leaders for underclass cadets during leadership training. Leadership education topics include: selecting a career, matching career goals with educational requirements, selecting a college, resume writing, and job interviews. The wellness program continues and includes a computer-based, personalized 36-week Personal Wellness Program for each cadet.

AS-410: LEADERSHIP AND SURVIVAL (480032)
Grade: 12  Credit: 1.0
Prerequisite(s): Two years of AFJROTC and SASI approval

The survival text is a synthesis of the basic survival information found in the Air Force Regulation 64-4 Survival Training. The survival instruction will provide training in skills, knowledge, and attitudes necessary to successfully perform fundamental tasks needed for survival. The course objectives are to know the elements of surviving; know how first aid, clothing, and shelter can provide personal protection for a survivor in a survival situation; know the necessities for maintaining life in a survival situation; and know how to travel and prepare for recovery in a survival situation.

AS-500: HONORS GROUND SCHOOL (480033)
Grade: 12  Credit: 1.0
Prerequisite(s): Completion of Leadership and Science of Flight with a grade average of 90 or above, an overall grade average of 85 or above, and SASI approval

Course materials are FAA approved and furnished by the USAF at no cost to the student. Course content includes weather, basic navigation, operation, and regulations pertaining to light aircraft flight. Flight simulator program is provided. (Program is ground instruction only – no flight experience is provided.) Successful completion of this course prepares student to pass the FAA Private Pilot Written Examination.

AS-510: HONORS SENIOR PROJECT (480034)
Grade: 12  Credit: 1.0
Prerequisite(s): One year of AFJROTC and SASI approval

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.
Embedded Courses:

LE-100: CITIZENSHIP, CHARACTER, AND AIR FORCE TRADITION
Studies dedicated to leadership and directly related to the academic subject matter, including improving study skills and time management. Includes sections on cadet and Air Force organizational structure; uniform wear; customs and courtesies, and other military traditions; health and wellness; fitness; individual self-control; and citizenship.

LE-200: COMMUNICATION, AWARENESS, AND LEADERSHIP
Topics include: communicating effectively, understanding groups and teams, preparing for leadership, solving conflicts and problems, and personal development. Written reports and speeches compliment the academic materials. Cadet activities include holding positions of greater responsibility in the planning and execution of corps projects.

LE-300: LIFE SKILLS AND CAREER OPPORTUNITIES
Course material will be helpful to students deciding which path to take after high school. Information on how to apply to college/ vocational/ technical school is included. Information on how to begin the job search is available for students choosing to enter the work force after high school, including resume writing and good interviewing skills. Other topics include: financial planning; how to save, invest and spend money wisely; understanding contracts, leases, wills, warranties, legal notices, and personal bills. Citizen responsibilities such as registering to vote, jury duty and draft registration are discussed. Information is presented on apartment shopping and grocery shopping skills.

LE-400: PRINCIPLES OF MANAGEMENT
This course addresses leadership topics that equip cadets to serve in leadership positions within the Corps. Included are: Managers and the Management Environment; Planning; Decision Making; Managing Change Stress and Innovation; Foundations of Individual and Group Behavior; Understanding Work Teams; Communication and Interpersonal Skills; Leadership and Trust. Throughout the text are many ethical dilemmas, case studies, and role-play activities built into the lessons. These activities are based on real life experiences and allow students to practice what they learn.

Elective Courses:

UNLOCKING YOUR POTENTIAL (UYP) (480035) SEMESTER
Grades: 10 to 12  Credit: 0.5
Prerequisite(s): One year of AFJROTC and SASI approval

Unlocking Your Potential (UYP) prepares and inspires the students to succeed in life by setting goals. It explains how setting goals and creating positive habits paves the road to success. It also helps build self-esteem and motivates the student’s inner strength. It shows the students they have the potential to believe and accomplish anything they desire.
NATIONAL ENDOWMENT FOR FINANCIAL LITERACY (NEFE) (480036) SEMESTER

Grades: 10 to 12  Credit: 0.5
Prerequisite(s): One year of AFJROTC and SASI approval

The NEFE HSFPP is a six-unit classroom curriculum that consists of six modules. The student guides are to be used as a workbook for the student. The NEFE High School Financial Planning Program® was designed for the 11th and 12th grade level, though the curriculum text is written at the 5th to 8th grade level. The high school program specifically focuses on basic personal finance skills that are relevant to the lives of pre-teens, teens, and young adults to lay a solid foundation for financial independence and future financial decisions.

CONGRESSIONAL MEDAL OF HONOR FOUNDATION (480037) SEMESTER

Grades: 10 to 12  Credit: 0.5
Prerequisite(s): One year of AFJROTC and SASI approval

The Congressional Medal of Honor Foundation curriculum provides students with opportunities to explore the important concepts of courage, commitment, sacrifice, patriotism, integrity, and citizenship and how these values can be exemplified in daily life.

PENNSYLVANIA VETERANS MUSEUM (480038) SEMESTER

Grades: 10 to 12  Credit: 0.5
Prerequisite(s): One year of AFJROTC and SASI approval

The Pennsylvania Veterans Museum curriculum is dedicated to preserving, protecting, and promoting the legacy and dignity of all veterans of the U.S. military. The focus is on telling the stories of America’s conflicts through the eyes of those who served in them. It includes stories about the Tuskegee Pilots, Women in the military, the 101st Airborne and stories from Vietnam, WWII in the Pacific, and WWII in Europe.

VETERANS NATIONAL EDUCATION PROGRAM (VNEP) (480039) SEMESTER

Grades: 10 to 12  Credit: 0.5
Prerequisite(s): One year of AFJROTC and SASI approval

The program focuses on teaching U.S. modern history through the understanding of the humanistic and cultural aspects of America’s military conflicts and how they have influenced the fabric of our global society.

CADET GUIDE/HANDBOOK (480040) SEMESTER

Grades: 10 to 12  Credit: 0.5
Prerequisite(s): One year of AFJROTC and SASI approval

Units will publish a Cadet Guide or unit operating instruction to which all cadets have access. Students in this course will develop/update the cadet guide and supporting documentation and procedures.
The primary purpose of the collaborative Partnership in Education opportunity is to (1) enhance the relationship between secondary and post-secondary programs in Government and Public Administration, (2) increase the overall quality of instruction and learning available through secondary and post-secondary education curricula, and (3) produce high school graduates who are college and career ready and dedicated to becoming exceptional administrators in government and public service to their communities.
The mission of the Army High School Junior Reserve Officers’ Training Corps (JROTC) is to motivate young people to be better citizens. Leadership and management training are emphasized throughout this program to prepare the students for responsible citizenship and to make the student fully aware of opportunities and benefits derived from their participation. In addition to leadership and management training, students also receive training in drill and ceremonies, first aid, geography, study skills, American history, and government. They are given “hands-on” experience in positions requiring progressively higher degrees of leadership and responsibility each year.

There is no active duty obligation incurred from enrollment in the JROTC program. However, satisfactory completion of the program can provide the following benefits: (a) Improved chance of selection for ROTC scholarships or service academy appointments; (b) Advanced placement in the college ROTC programs; (c) Advanced rank and pay grade in the Active Duty, Reserve, or National Guard Forces; (d) An opportunity to develop leadership and management skills with the ability to live and work cooperatively with others.

The JROTC program also sponsors four varsity sports: Precision Drill Team, Color Guard, Military Skills Team, and Rifle Team. Successful participants are awarded school varsity letters.

JROTC is offered as a one year/1.0 credit course. Students may enter the program during the fall or spring semester of their 9th - 12th grade years. The prerequisite to JROTC I, II, III is: a student must not have a medical condition or impairment that would preclude his/her full participation in JROTC. Students must have completed or be enrolled in JROTC I, II, or III in order to enroll in JROTC IV.

Army JROTC students receive an embedded credit for Career Preparedness with the successful completion of LET I and LET III. The two courses are embedded within the JROTC courses and together the courses prepare students with content knowledge and skills in the areas of leadership and career development, managerial training, technology skills, and financial literacy. Leadership Education and Training (LET) I: Introduction to Leadership Development presents Citizenship, Introduction to Leadership Theory and Application, Communication Skills, First Aid and Military Customs and Courtesies. LET III: Applied Leadership Development continues the discussion of leadership development and managerial techniques and prepares students with content knowledge and skills in the areas of technology skill applications, managing finances and budgeting, academic planning, and career development, saving and investing, banking and financial institutions, credit and debt, and risk management and insurance. Also, the courses meet the 20-hour online experience requirement. The successful completion of these courses satisfies the graduation requirement as follows:

- **Career Preparedness**: Successful completion of LET I and LET III satisfies the required Career Preparedness credit.
- Students may also earn a Physical Education/LIFE credit for successful completion of one year of JROTC.

Students’ grades are based on academic and leadership performance. Academic grades are determined by quiz and examination scores. The leadership grade is based on appearance, attitude, conduct, and leadership and management performance.
All uniforms and textbooks are provided by the United States Army at no cost to the student. Parents become responsible for government-issued items until they are returned at the end of the school year or when the student leaves the program for any reason.

The JROTC program has much to offer young men and women who want to get the most out of their high school years. What they learn in this program will be useful now and in the future.

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<tr>
<td>JROTC I - Introduction to Leadership Development (480041)</td>
<td>JROTC II – Intermediate Leadership Development (480042)</td>
<td>JROTC III – Applied Leadership Development (480043)</td>
<td>JROTC IV – Advanced Leadership Development (480044)</td>
<td>• Army JROTC Certificate</td>
</tr>
</tbody>
</table>

**JROTC I – INTRODUCTION TO LEADERSHIP DEVELOPMENT (480041)**

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** none  
**Fee(s):** $30 course fee

*This course presents the history, purpose, and objectives of the ROTC program; wearing of the uniform; customs and courtesies of the service; and respect for the flag and National Anthem. The primary emphasis of this course of instruction is the introduction to leadership theory and the development of leadership principles in each student. Students are also introduced to citizenship, leadership theory and application, communication skills, and first aid.*

**JROTC II – INTERMEDIATE LEADERSHIP DEVELOPMENT (480042)**

**Grades:** 10 to 12  
**Credit:** 1.0  
**Prerequisite(s):** JROTC I – Introduction to Leadership Development  
**Fee(s):** $30 course fee

*This course continues the instruction in leadership and management, discussion of self-concept, elements of the leadership process, and management characteristics and functions. Emphasis is placed on practical exercise in the development of leadership and management skills, drill and ceremony, and the value of physical exercise and conditioning activities. To enhance their leadership potential, students are placed in various leadership positions within the cadet corps. Intermediate courses on first aid, geography, earth science, citizenship, American government, and communications are continued.*
JROTC III – APPLIED LEADERSHIP DEVELOPMENT (480043)
Grades: 11 to 12 Credit: 1.0
Prerequisite(s): JROTC II – Intermediate Leadership Development
Fee(s): $30 course fee

This course continues the discussion of military leadership and managerial techniques; the building of teamwork and
team spirit; the problem-solving process; duties and responsibilities of a leader; and practical exercise in leadership
development. Military customs, courtesies, citizenship, leadership theory, and foundations for success are continued with
the emphasis on “application.”

JROTC IV – ADVANCED LEADERSHIP DEVELOPMENT (480044)
Grade: 12 Credit: 1.0
Prerequisite(s): JROTC III – Applied Leadership Development
Fee(s): $30 course fee

During their senior year, cadets receive extensive “hands-on” experience in leadership and management by filling the
senior command and staff positions within the cadet corps. Extracurricular activities include leadership positions in the
varsity Precision Drill Team, Color Guard, Military Skills Team, and Rifle Team.

ARMY JROTC 1b - (480045)
Grades: 9 to 12 Credit: 1.0
Prerequisite(s): none

This course is designed to develop an understanding of leadership traits and principles, citizenship, oral communication,
physical fitness, health/wellness including drug prevention and CPR, motivational techniques such as “Unlocking Your
Potential” and an awareness of military history.

ARMY JROTC 2b - (480046)
Grades: 9 to 12 Credit: 1.0
Prerequisite(s): none

This course is designed to develop proficiency in health/wellness and CPR techniques, and an appreciation for self-
awareness techniques (“Winning Colors”), modern technologies, career opportunities, and role of the U.S. Army, military
history, and physical fitness.

ARMY JROTC 3b - (480047)
Grades: 9 to 12 Credit: 1.0
Prerequisite(s): none

This course develops an understanding of the justice system (military and civilian), the role of the U.S. Armed forces,
safety (hunting and boating), orienteering, physical fitness, new technologies, military history, and motivational learning
techniques such as “Power Learning.”
ARMY JROTC 4b - (480048)

Grades: 9 to 12  
Credit: 1.0

Prerequisite(s): none

This course develops proficiency in command and staff procedures, physical fitness, military parades and ceremonies, citizenship, science and new technologies and communications. Students must demonstrate ability to speak to large audiences, perform staff briefings and prepare staff reports, write resumes and cover letters, and complete job applications. They must also apply problem solving/decision making skills in leadership and supervisory positions of authority.

Embedded Courses:

LET I: INTRODUCTION TO LEADERSHIP DEVELOPMENT
This course of instruction presents Citizenship, Introduction to Leadership Theory and Application, Communication Skills, First Aid and Military Customs and Courtesies.

LET II: INTERMEDIATE LEADERSHIP DEVELOPMENT
This course continues the instruction in Leadership Theory and Application with emphasis on Leadership Development and management skills. Intermediate courses on first aid, geography, earth science, citizenship, American government, and communication are continued.

LET III: APPLIED LEADERSHIP DEVELOPMENT
This course continues the discussion of leadership development and managerial techniques and prepares students with content knowledge and skills in the areas of technology skill applications, managing finances and budgeting, academic planning, and career development, saving and investing, banking and financial institutions, credit and debt, and risk management and insurance.

LET IV: ADVANCED LEADERSHIP DEVELOPMENT
This course is the application phase of "hands-on" experience in leadership and management by filling key leadership positions within the Cadet Corps.
Health Science Cluster

Health Science: Medical Professions Clinical Pathway

The rigorous and relevant Health Science Academy allows students to investigate the roles of health science and medical professionals as they study the concepts of human medicine, physiology, genetics, microbiology, and public health. Students examine the structures and interactions of human body systems and explore the prevention, diagnosis, and treatment of disease, all while working collaboratively to understand and design solutions to the most pressing health challenges of today and the future.

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<td>HEALTH SCIENCE INTERNSHIP (490014) (2 credit course)</td>
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A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

A one-credit foundational course that introduces students to integrated academics, employability and career development skills, legal and ethical issues, communications, safety, and life skills. This course is a prerequisite to all courses in the Health Science cluster.

Foundations of Health Science can be substituted for the required Health credit for graduation.
THERAPEUTIC SERVICES (490023)
Grade: 10  Credit: 1.0
Prerequisite(s): Foundations of Health Science
Fee(s): $40 course fee $30 HOSA dues (paid once a year, first semester - no waiver) $70 total

A one-credit course that introduces students to occupations and functions in the therapeutic services pathways. Careers in this area include nursing, medicine, physical therapy, surgical technology, respiratory therapy, emergency medical technician, and more.

DIAGNOSTIC SERVICES (490017)
Grade: 11  Credit: 1.0
Prerequisite(s): Foundation of Health Science
Fee(s): $40 course fee, $30 HOSA dues (paid once a year, first semester - no waiver) $70 total

A one-credit course designed to introduce students to careers in the diagnostic services pathway including electrocardiographic technician, medical laboratory technologist, radiographic technician, and pathologist.

HEALTH SCIENCE INTERNSHIP (490014)
Grade: 12  Credit: 2.0
Prerequisite(s): Foundations of Health Science, Therapeutic Services Sciences, and approval of instructor
Fee(s): $40 course fee, $15 malpractice insurance, $30 HOSA dues (paid once a year, first semester - no waiver) $85 total
Also needed for class: school scrub uniform, white shoes, and a watch with a second hand

Students who meet the class requirements and have the instructors’ approval participate in internships two days per week at Huntsville Hospital and various local medical facilities. Students will research diagnoses, medications, and treatments. Approved students will have the opportunity to intern in the operating room, emergency room, and special units. Specialized skills such as veterinarian procedures, dental procedures, and suturing will be introduced. Must be able to provide own transportation to internships. REQUIRED PROOF OF: Hepatitis B vaccines, current PPD test, and drug screen.
Biomedical Sciences Pathway

The rigorous and relevant biomedical science academy allows students to investigate the roles of health science and biomedical professionals as they study the concepts of human medicine, physiology, genetics, microbiology, and public health. Students examine the structures and interactions of human body systems and explore the prevention, diagnosis, and treatment of disease, all while working collaboratively to understand and design solutions to the most pressing health challenges of today and the future.

Physical Career Academy Location(s) Where Available*

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<tr>
<td>Career Preparedness (400025) AND Biology (220011) OR Biology, Honors (220012)</td>
<td>Human Body Structures and Functions (490015)</td>
<td>Introduction to Biotechnology (490041)</td>
<td>Forensics and Criminal Investigations (490025) AND/OR Biology, AP (220014)</td>
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</tbody>
</table>

CAREER PREPAREDNESS (400025)
Grade: 9 Credit: 1.0
Prerequisite(s): none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

BIOLOGY (220011)
Grade: 9 Credit: 1.0
Prerequisite(s): none

This entry-level course is a comprehensive study for the possibly college-bound student. Heavy emphasis is placed on the Alabama State Course of Study: Science. This course is structured to help students build appropriate vocabulary, critical thinking skills and laboratory techniques in preparation for high levels of science.

BIOLOGY, HONORS (220012)
Grade: 9 Credit: 1.0
Prerequisite(s): none

This advanced course is a faster-paced comprehensive study for college-bound students. Critical thinking skills are developed using labs, scientific processes, and discussion topics including scientific method, matter, cells, DNA, genetics, classification, microbiology, fungi, plants, invertebrates, and vertebrates. This course is weighted 5 points on a 100-point scale.
HUMAN BODY STRUCTURES AND FUNCTIONS (490015)
Grade: 10    Credit: 1.0
Prerequisite(s): Biology or Biology, Honors
Fee(s): $60 course fee, $30 HOSA dues (paid once a year, first semester - no waiver) $90 total

A course designed to help students learn care content which emphasizes the structure and functions of cells, tissues, organs, organization of the human body, and medical terminology. Scientific processes, problem based learning, and critical thinking are integral parts of the course. Science credit may be received for this course.

INTRODUCTION TO BIOTECHNOLOGY (490041)
Grade: 11    Credit: 1.0
Prerequisite(s): Human Body Structures and Functions
Fee(s): $60 course fee, $30 HOSA dues (paid once a year, first semester - no waiver) $90 total

This course provides an overview of the biotechnology fields. This advanced level course emphasizes skill development, application of scientific concepts of biomedical research and development, Mendelian genetics, gene structure and function, inheritance patterns, genetic abnormalities, and the human genome project.

FORENSIC AND CRIMINAL INVESTIGATIONS (410025)
Grade: 11 to 12    Credit: 1.0
Prerequisite(s): Biology or Biology, Honors and Chemistry or Chemistry, Honors

This course focuses on the history of forensic science; criminal investigation; forensic serology and DNA; forensic studies in anthropology, toxicology, fingerprinting, firearms, and physics; and document examination.

BIOLOGY, AP (220014)
Grades: 11 to 12    Credit: 1.0
Prerequisite(s): Biology, Honors and Chemistry or Chemistry, Honors (recommended)

This challenging course is designed to be the equivalent of an introductory, two-semester college-level biology course. This course covers topics regularly covered in a college biology course at a fast pace. The goal is to cover the unit topics listed in the College Board Description such as biochemistry, cell biology, bioenergetics; Mendelian, molecular, and population genetics; survey of the domains Eubacteria and Eukarya, structure and function of plants and animals, behavior, and ecology. Students will also be required to perform the twelve biology laboratories mandated by the College Board of AP Biology. This course will prepare students to take the national AP exam. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)
Hospitality and Tourism Cluster

**Culinary Arts Pathway**

This career academy is a major in the Career Connections Program. Students are prepared for a variety of careers in culinary arts and the hospitality industry. Introduction to Culinary Arts and Hospitality, Culinary Arts 1, Advanced Culinary Arts, Culinary Senior Project, Travel, and Tourism 1 and 2 are the courses included in this major. The required school-based laboratory for the Culinary Arts pathway is a food service kitchen with a food serving and dining area. Formal presentations and portfolios are developed to showcase students’ work. Connecting Experiences are a requirement of the major. Family, Career, and Community Leaders of America (FCCLA), an integral part of the curriculum, enhances leadership development skills and provides opportunities for community service.

**Students are required to submit a “Huntsville City Schools Career and Technical Education Traveling Programs Application” to be accepted into this program.**

**Physical Career Academy Location(s) Where Available***

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<tbody>
<tr>
<td></td>
<td>Career Preparedness (400025)</td>
<td>1st semester: Hospitality and Tourism (500011)</td>
<td>1st semester: Culinary Arts II (500013)</td>
<td>1st semester: Event Planning (500015)</td>
<td>• ProStart National Certificate of Achievement • ServSafe</td>
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<tr>
<td></td>
<td>2nd semester: Culinary Arts I (500012)</td>
<td>2nd semester: Baking and Pastry Arts (500014)</td>
<td></td>
<td>2nd semester: Food Innovations and Media (510016)</td>
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</table>

**CAREER PREPAREDNESS (400025)**

Grade: 9  Credit: 1.0  Prerequisite(s): none  

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.
HOSPITALITY AND TOURISM (500011)
Grade: 10  Credit: 1.0
Prerequisite(s): none
Fee(s): $35 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $50 total

A one-credit course that serves as the prerequisite for all pathways included in the Hospitality and Tourism cluster. Major topics include introduction to hospitality and tourism, recreation, travel and tourism, lodging, restaurant and food and beverage services, safety and sanitation, customer relations, and quality services. The required school-based laboratory for the Hospitality and Tourism cluster is a commercial food service kitchen with a food-serving and dining area. School-based laboratory experiences are essential for students to develop skills in the hospitality and tourism industry.

CULINARY ARTS I (500012)
Grade: 10  Credit: 1.0
Prerequisite(s): Hospitality and Tourism
Fee(s): $35 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $50 total

Culinary Arts I will introduce students to basic food production, management, and service activities in both the back- and front-of-the-house. Emphasis is placed on sanitation, safety, and basic food preparation. Skills in mathematics, science, and communication are reinforced in this course.

CULINARY ARTS II (500013)
Grade: 11  Credit: 1.0
Prerequisite(s): Culinary Arts I
Fee(s): $35 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $50 total

Culinary Arts II provides advanced experiences in food production, management, and service. Topics include food service operations, advanced food production, and professionalism. Skills in mathematics, communication, creative thinking, and entrepreneurship are reinforced in this course.

BAKING AND PASTRY ARTS (500014)
Grade: 11  Credit: 1.0
Prerequisite(s): Culinary Arts II
Fee(s): $35 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $50 total

This course follows Culinary II and is designed to provide students with the principles of baking and pastry techniques. The course includes baking technologies, equipment, preparation procedures, productions methods, pastry methods, science of bread baking, confections, and desserts, showpieces, cost control, food safety, and presentation techniques to create fundamental baking to the latest baking and pastry trends.
EVENT PLANNING (500015)

Grade: 12  Credit: 1.0

Prerequisite(s): Baking and Pastry Arts

Fee(s): $35 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $50 total

Students will learn to organize and plan all aspects of business and social events including the food, location, and décor associated with hiring an event planner. Concepts taught in the course to meet the needs of clients include planning for the event with activities, establishing a budget, determining the theme, planning the guest list, determining the location, developing an event plan schedule, planning transportation needs, training of staff, staging the event, calculating room and space requirements, providing necessary technology and equipment, planning food and beverage services, securing entertainment, understanding legal issues in event planning, and conducting post-evaluations of event.

FOOD INNOVATIONS AND MEDIA (510016)

Grade: 12  Credit: 1.0

Prerequisite(s): Baking and Pastry Arts

Fee(s): $35 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $50 total

Course content provides opportunities for students to explore global food systems; examine trends in food processing and food innovations; research influences on purchasing behavior of consumers; develop and analyze recipes for new food products through experimental food labs; apply social media and digital design techniques, photographic styling applications, and journalism skills; and explore career options in this specific food industry.
Human Services Cluster

Barbering Pathway

This career academy provides students with the opportunity to participate in programs that prepare students for careers that provide services to consumers in the field of barbering applications and treatments, such as hairstyling, hair cutting and shaving predominately male clients. Students will have the opportunity to earn the “Natural Hairstyling Licensure” and “Barbering Licensure.”

Students are required to submit a Huntsville City Schools Career and Technical Education Traveling Programs Application to be accepted into this program.

<table>
<thead>
<tr>
<th>Physical Career Academy Location(s) Where Available*</th>
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<tr>
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<th>Certification Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Preparedness (400025)</td>
<td>1st Semester Introduction to Barbering (510160) AND 2nd Semester Hair Coloring (510061)</td>
<td>1st Semester Chemical Services (510062) AND 2nd Semester Salon Practice and Management (510065)</td>
<td>1st Semester State Board Practicum (510068) AND 2nd Semester Senior Career Pathway Project-Human Services-Cosmetology (510070)</td>
<td>• Natural Hairstyling Licensure • Barbering Licensure</td>
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</table>

CAREER PREPAREDNESS (400025)
Grade: 9  Credit: 1.0
Prerequisite(s): none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.
INTRODUCTION TO BARBERING (510160)

Grade: 10  Credit: 1.0
Prerequisite(s): none
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

Introduction to Barbering is a one-credit course that provides students with a study of concepts related to the Barbering profession. Specific topics include Barbering history and career opportunities, professional image, infection control, and fundamentals, and principles of hair care and design. Students also gain initial practical experience in sanitation, shampooing, hair shaping, and hairstyling. Upon successful completion of this course, students can practice safety and sanitary precautions as they perform basic Barbering procedures. Introduction to Barbering is the prerequisite to Chemical Services, Hair Coloring, Salon Practices and Management, and State Board Practicum.

HAIR COLORING (510061)

Grade: 10  Credit: 1.0
Prerequisite(s): Introduction to Cosmetology
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

A one-credit course designed to provide students with the study and experience in hair coloring and lightening. Emphasis is placed on color application, laws, and levels and classifications of color. The prerequisite for this course is Introduction to Cosmetology.

CHEMICAL SERVICES (510062)

Grade: 11  Credit: 1.0
Prerequisite(s): Introduction to Spa Techniques
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

A one-credit course designed to focus on the theory of chemical services related to chemical hair texturing. Students gain initial, practical experience in performing various chemical texturing activities. The prerequisite for this course is Introduction.

SALON PRACTICE AND MANAGEMENT (510065)

Grade: 10  Credit: 1.0
Prerequisite(s): Introduction to Cosmetology
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $60 total

A one-credit course designed to assist students in developing entry-level management skills for the cosmetology industry. Students practice all phases of cosmetology in a salon setting. The prerequisite for this course is Introduction to Cosmetology.
STATE BOARD PRACTICUM (510068)
Grade: 12  Credit: 1.0
Prerequisite(s): Advanced Spa Techniques Application
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

A one-credit culminating course designed to provide students with a comprehensive study of State Board procedures and practical applications in cosmetology and nail care. The course consists of Pathway A—Cosmetology (content standards 1-17) and Pathway B—Nail Care Services (content standards 1-11 and 18-20). The prerequisites for this course depend upon the licensure the student is pursuing.

SENIOR CAREER PATHWAY PROJECT-HUMAN SERVICES-COSMETOLOGY (510070)
Grade: 10  Credit: 1.0
Prerequisite(s): Introduction to Cosmetology
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.
Human Services Cluster

Esthetics and Spa Management Pathway

This career academy provides students with the opportunity to participate in programs that prepare students for careers in the Esthetics and Spa Management pathway. This academy aims to prepare students for the workforce, offering them a curriculum that provides hands-on experience and certification opportunities in Esthetics and Spa Management.

Students are required to submit a Huntsville City Schools Career and Technical Education Traveling Programs Application to be accepted into this program.

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<tr>
<td></td>
<td>Career Preparedness (400025)</td>
<td>1st Semester Introduction to Cosmetology (510060)</td>
<td>1st Semester Advanced Spa Techniques Application (510064)</td>
<td>1st Semester Chemical Services (510062)</td>
<td>• Natural Hairstyling License</td>
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<td>AND 2nd Semester Introduction to Spa Techniques (510063)</td>
<td>AND 2nd Semester Salon Practice and Management (510065)</td>
<td>AND 2nd Semester Natural Hair Styling Practicum (510076)</td>
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CAREER PREPAREDNESS (400025)

Grade: 9    Credit: 1.0
Prerequisite(s): none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

INTRODUCTION TO COSMETOLOGY (510060)

Grade: 10    Credit: 1.0
Prerequisite(s): none
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

A one-credit course designed to provide students with a study of concepts related to the cosmetology profession. Students gain initial practical experience in sanitation, shampooing, hair shaping, and hairstyling.
INTRODUCTION TO SPA TECHNIQUES (510063)
Grade: 10  Credit: 1.0
Prerequisite(s): Introduction to Cosmetology
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total
A one-credit course that focuses on the structure and function of various systems of the body. This course also provides hands-on experiences in facial massage techniques, skin care, and hair removal.

ADVANCED SPA TECHNIQUES APPLICATION (510064)
Grade: 11  Credit: 1.0
Prerequisite(s): Introduction to Spa Techniques
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total
A one-credit course that provides students with study and experiences in advanced hair removal, cosmetic applications, skin care, and massage techniques.

SALON PRACTICE AND MANAGEMENT (510065)
Grade: 10  Credit: 1.0
Prerequisite(s): Introduction to Cosmetology
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total
A one-credit course designed to assist students in developing entry-level management skills for the cosmetology industry. Students practice all phases of cosmetology in a salon setting. The prerequisite for this course is Introduction to Cosmetology.

CHEMICAL SERVICES (510062)
Grade: 12  Credit: 1.0
Prerequisite(s): Advanced Spa Techniques Application
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total
A one-credit course designed to focus on the theory of chemical services related to chemical hair texturing. Students gain initial, practical experience in performing various chemical texturing activities. The prerequisite for this course is Introduction to Cosmetology.

NATURAL HAIR STYLING PRACTICUM (510076)
Grade: 10  Credit: 1.0
Prerequisite(s): Introduction to Cosmetology
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total
Natural Hair Styling Practicum is a one credit course designed to provide instruction on natural hair care services and techniques for styling and grooming natural hair. Core domain service areas include work area and client preparation, set-up of supplies, safe work practices, procedures related to services and design, and blood exposure procedure.
This program is for students who are interested in pursuing careers in the fashion and retail industry. Courses provide students with knowledge of fashion, fashion design, apparel and textile design technology, and fashion business operations, media, and merchandising.

**Students are required to submit a Huntsville City Schools Career and Technical Education Traveling Programs Application to be accepted into this program.**

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### CAREER PREPAREDNESS (400025)

**Grade:** 9  
**Credit:** 1.0  
**Prerequisite(s):** none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

### FAMILY AND CONSUMER SCIENCES (510004)

**Grade:** 9  
**Credit:** 1.0  
**Prerequisite(s):** none  
**Fee(s):** $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $65 total

A one-credit course that provides students with core knowledge and skills in the areas of marriage and family, parenting and care giving, consumer sciences, apparel, housing, food and nutrition, and technology. A school-based laboratory is required for this course.
FASHION (510041)
Grade: 10  Credit: 1.0
Prerequisite(s): Family and Consumer Sciences
Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $65 total

A one-credit course designed to introduce students to the selection and care of clothing and accessories for individuals and families throughout the life span. A school-based laboratory is required for this course.

FASHION DESIGN (510044)
Grade: 10  Credit: 1.0
Prerequisite(s): Fashion
Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $65 total

A one-credit course designed for students interested in pursuing a career in fashion design. It provides students with knowledge and skills for application of artistic expression related to textiles, apparel, and fashion design. A fashion design studio is the required school-based laboratory for this course.

FASHION MERCHANDISING (410015)
Grade: 11  Credit: 1.0
Prerequisite(s): Fashion Design
Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $65 total

A one-credit course designed for students interested in pursuing a career in the fashion and retail industry. Students will explore fashion business operations, merchandising techniques, and technology used in the industry.

ENTREPRENEURSHIP IN FACS (510008)
Grade: 11  Credit: 1.0
Prerequisite(s): Fashion Merchandising
Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $65 total

This is a one-credit course taught in grades 9-12 that includes the necessary knowledge and skills to own and operate a business. It is the intent of this course that entrepreneurial concepts be incorporated within the framework of family and consumer sciences-related free enterprise experiences within the Human Services Cluster career pathways, Hospitality and Tourism Cluster career pathways, and the Education and Training Cluster career pathways. It is anticipated that the business concepts should be introduced and integrated throughout the free enterprise experience to maximize student interest and impact. The course content focuses on business and financial planning, personnel management, marketing principles, business and labor laws, legal rights and responsibilities of ownership and communication. Other topics to be taught are market research, purchasing process system, distribution systems, warehouse and inventory control, salesmanship, sales promotion, and theft control that influence the flow of goods and services from producer to consumer. Students are prepared to create and manage their own Family and Consumer Sciences business or embark on a career related to business development.
**FASHION MEDIA (510045)**
Grade: 12    Credit: 1.0
Prerequisite(s): Fashion Merchandising
Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $65 total

This is a one-credit course designed for students interested in fashion, fashion design, and apparel and textile design technology. Content provides opportunities for students to analyze consumer, culture, and celebrity effects; research current and future trends; explore the fashion press and print process and E-commerce for fashion; engage in public relations and events management; and utilize and apply social media and digital design techniques, photographic styling applications, and journalism skills.

**SENIOR CAREER PATHWAY PROJECT-HUMAN SERVICES, FACS (510069)**
Grade: 12    Credit: 1.0
Prerequisite(s): Fashion Media
Fee(s): $50 course fee, $15 FCCLA dues (dues are paid once a year, first semester - no waiver) $65 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.

Career and technical student organizations are integral, co-curricular components of each career and technical education course. These organizations serve as a means to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.
This program is for students who are interested in pursuing careers in nutrition, wellness, and health and disease prevention. Courses provide students with knowledge in event planning, photographic styling applications, social media, and design techniques, developing and adapting food products for marketing and specific nutrition needs, meal planning, food safety, and the scientific investigation of production, processing, preparation, evaluation, and utilization of food.

**Students are required to submit a Huntsville City Schools Career and Technical Education Traveling Programs Application to be accepted into this program.**

<table>
<thead>
<tr>
<th>Physical Career Academy Location(s) Where Available</th>
<th>9th Grade</th>
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<th>11th Grade</th>
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**9th Grade**

Career Preparedness (400025)

**10th Grade**

1st Semester
Family and Consumer Sciences (510004)
AND
2nd Semester
Food and Nutrition (510011)

**11th Grade**

1st Semester
Dietetics (510014)
AND
2nd Semester
Sports Nutrition (510017)

**12th Grade**

1st Semester
Chemistry of Food (510013)
AND
2nd Semester
Senior Career Pathway Project-Human Services, FACS (510069)

**Certification Opportunities**

- ServSafe

**CAREER PREPAREDNESS (400025)**

Grade: 9  Credit: 1.0  Prerequisite(s): none

*A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.*

**FAMILY AND CONSUMER SCIENCES (510004)**

Grade: 10  Credit: 1.0  Prerequisite(s): none

Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $65 total

*A one-credit course that provides students with core knowledge and skills in the areas of marriage and family, parenting and care giving, consumer sciences, apparel, housing, food and nutrition, and technology. A school-based laboratory is required for this course.*
FOOD AND NUTRITION (510011)
Grade: 10  Credit: 1.0
Prerequisite(s): Family and Consumer Sciences
Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver), $65 total

A one-credit course designed to enable students to explore the relationship between food, nutrition, fitness, and wellness. Students learn how to select and prepare nutritious foods. A school-based laboratory is required for this course.

DIETETICS (510014)
Grade: 11  Credit: 1.0
Prerequisite(s): Food and Nutrition
Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver), $65 total

A one-credit course designed to provide students with advanced knowledge and skills used in nutrition and dietetics. Major topics include nutrition, meal planning, safety, food science, and professional behavior. A school-based laboratory is required for this course.

SPORTS NUTRITION (510017)
Grade: 11  Credit: 1.0
Prerequisite(s): Dietetics
Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver), $65 total

This course examines the relationship between nutrition, physical performance, and overall wellness. Students will learn how to choose nutritious foods for healthy lifestyles and peak performance. Health and disease prevention through nutrition, physical activity, and wellness practices are essential components of the course. This course emphasizes the metabolic process and management of food choices for optimal health and physical performance. Students are challenged to develop personal fitness and nutrition plans.

CHEMISTRY OF FOODS (510013)
Grade: 12  Credit: 1.0
Prerequisite(s): Sports Nutrition
Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver), $65 total

A one-credit course designed to provide an in-depth study of the application of science principles to the scientific investigation of the production, processing, preparation, evaluation, and utilization of food. A school-based laboratory is required for this course.

SENIOR CAREER PATHWAY PROJECT - HUMAN SERVICES, FACS (510069)
Grade: 12  Credit: 1.0
Prerequisite(s): Chemistry of Foods
Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver), $65 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.
Interior Design and Real Estate Pathway

This program is for students who are interested in pursuing careers in the real estate and brokerage industry. Courses provide students with knowledge in interior design, house trends, marketing, customer and client service, licensure, legal and ethical aspects of buying, selling, leasing, renting, and financing land, real property, and real estate. Students will also gain knowledge of the staging of real estate, showing property to clients, and various aspects of property management.

**Students are required to submit a Huntsville City Schools Career and Technical Education Traveling Programs Application to be accepted into this program.**

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</tr>
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<tbody>
<tr>
<td>Career Preparedness (400025) AND Family and Consumer Sciences (510004)</td>
<td><strong>1st Semester</strong> Art, Architecture, &amp; Design (510055) AND <strong>2nd Semester</strong> Intro to Real Estate Sales (510057)</td>
<td><strong>1st Semester</strong> Buying and Selling Real Estate (510058) AND <strong>2nd Semester</strong> The Real Estate Brokerage Business (510059)</td>
<td><strong>1st Semester</strong> CTE Lab in Human Services (510074) AND <strong>2nd Semester</strong> Senior Career Pathway Project Human Services (510069)</td>
<td>• National Retail Federation-National Professional Certification in Customer Service and Sales • ASK Institute-Concepts of Entrepreneurship and Management • ServSafe Manager</td>
</tr>
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</table>

**CAREER PREPAREDNESS (400025)**

**Grade:** 9  **Credit:** 1.0  
**Prerequisite(s):** none

_A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience._

**FAMILY AND CONSUMER SCIENCES (510004)**

**Grade:** 9  **Credit:** 1.0  
**Prerequisite(s):** none  
**Fee(s):** $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $65 total

_A one-credit course that provides students with core knowledge and skills in the areas of marriage and family, parenting and care giving, consumer sciences, apparel, housing, food and nutrition, and technology. A school-based laboratory is required for this course._
ART, ARCHITECTURE, & DESIGN (510055)
Grade: 10  Credit: 1.0
Prerequisite(s): Family and Consumer Sciences
Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $65 total

This is a one-credit course designed to introduce students to the influence of art and architecture on the professional field of interior design. Content in the course includes an in-depth application of the elements of design; history of architecture; architectural styles; influences of architectural design on culture; period furniture and furnishings; influence of technology and mass production; prosperity cycles through various historical periods; and careers in architecture, design, and other related professions. Students will also learn how to utilize and apply social media and digital design techniques, photographic styling applications, and journalism skills.

INTRODUCTION TO REAL ESTATE SALES (510057)
Grade: 10  Credit: 1.0
Prerequisite(s): Art, Architecture, & Design
Fee(s): $50 course fee, $15 FCCLA dues (dues are paid once a year, first semester - no waiver) $65 total

This is a one-credit course taught in grades 9-12. Students will learn aspects of marketing real estate; the importance of customer and client service; the differences between land, real estate, and real property; laws and ethics governing the real estate industry; and appropriate licensure requirements in the industry. Additional career opportunities in the housing and real estate industry are explored. Laboratory experiences are an integral part of this course and may include field trips, job shadowing, internships, etc.

BUYING AND SELLING REAL ESTATE (510058)
Grade: 11  Credit: 1.0
Prerequisite(s): Introduction to Real Estate Sales
Fee(s): $50 course fee, $15 FCCLA dues (dues are paid once a year, first semester - no waiver) $65 total

This is a one-credit course taught in grades 10-12. Students will learn aspects of buying, selling, and financing land, real property, and real estate; the listing of client’s property; developing client relationships; following procedures for renting, leasing, and selling real estate; understanding contract terminology, staging of real estate; and showing property to clients. Laboratory experiences are an integral part of this course and may include field trips, job shadowing, internships, etc. Introduction to Real Estate Sales is a required prerequisite to this course.

THE REAL ESTATE BROKERAGE BUSINESS (510059)
Grade: 11  Credit: 1.0
Prerequisite(s): Buying and Selling Real Estate
Fee(s): $50 course fee, $15 FCCLA dues (dues are paid once a year, first semester - no waiver) $65 total

This is a one-credit course taught in grades 10-12. Students will acquire content knowledge and skills related to the real estate brokerage business. Requirements for office facilities, policies and operating procedures for effective operation, detailed tasks for marketing and listing real estate, commercial real estate sales, use of technology, and property management are topics addressed in the course. Laboratory experiences are an integral part of this course and may include field trips, job shadowing, internships, apprenticeships, etc. Buying and Selling Real Estate is a required prerequisite to this course.
CTE LAB IN HUMAN SERVICES (510074)

Grade: 12  Credit: 1.0
Prerequisite(s): Real Estate Brokerage
Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $65 total

This one-credit course is an extended laboratory experience to address the advancement and specialization of careers within Human Services through individualized or small group instruction. This course allows students to enhance the essential and intermediate skills learned through program courses within the career cluster and prepare for industry credentialing opportunities.

SENIOR CAREER PATHWAY PROJECT - HUMAN SERVICES - FACS (510069)

Grade: 12  Credit: 1.0
Prerequisite(s): Real Estate Brokerage
Fee(s): $50 course fee, $15 FCCLA dues (paid once a year, first semester - no waiver) $50 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.
Information Technology Cluster

Cyber Security Pathway

The Huntsville City Schools Cyber Academy, recognized as AFA CyberPatriot Center of Excellence, introduces students to the broad field of Cyber Security. Students learn multiple numbering systems, become familiar with Microsoft Windows, and LINUX operating systems. They learn networking, vulnerability assessment, and cyber forensics. Students participate in the national CyberPatriot competition. Opportunities also exist for student internships and industry recognized certifications.

Physical Career Academy Location(s) Where Available

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<th>Certification Opportunities</th>
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</thead>
</table>

CAREER PREPAREDNESS (400025)

Grade: 9 Credit: 1.0
Prerequisite(s): none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

FOUNDATIONS OF INFORMATIONAL SECURITY (520038)

Grade: 9 Credit: 1.0
Co-requisite(s): Must be concurrently enrolled in Algebra I or higher-level math
Fee(s): $30 per course

This course introduces students to the field of Cyber Security. Students will become familiar with Microsoft Windows and Linux Operating Systems. They will learn to use multiple numbering systems and how these systems are used in network addressing and operating system configuration. Students will also gain experience in the areas of vulnerability identification, risk assessment, risk mitigation techniques, Wi-Fi security, IP Addressing, and Informational Ethics. This course is weighted 10 points on a 100-point scale.
PRINCIPLES OF INFORMATION SECURITY (520039)
Grade: 10  Credit: 1.0  
**Prerequisite(s):** Foundations of Informational Security
**Fee(s):** $30 course fee

This course introduces students to computer network systems that are most commonly the focus of attack. Students will build and configure the common elements found on the Internet to include database servers, web servers, and web application servers. Students will be introduced to remote access terminal shells which will be vital toward penetration testing and attack vectors. This course is weighted 10 points on a 100-point scale.

CYBER FORENSICS (520040)
Grade: 11  Credit: 1.0  
**Prerequisite(s):** Principles of Information Security
**Fee(s):** $30 course fee

This class covers the methodologies behind cyber-attacks and the various types of attack techniques. Students will participate in hands on lab exercises using the latest attack tools and learn to evaluate the potential vulnerabilities of network targets. Students will be required to participate on a competitive cyber team. This course is weighted 10 points on a 100-point scale.

ADVANCED CYBER FORENSICS (520042)
Grade: 11 & 12  Credit: 1.0  
**Prerequisite(s):** Cyber Security and approval of instructor
**Fee(s):** $30 course fee

This second-year course provides the student with experiences in how to look for the weaknesses and vulnerabilities in target systems and uses the same knowledge and tools as a hacker. This course may lead to the Certified Ethical Hacker certification from the IC-Council. This course is weighted 10 points on a 100-point scale.
Entertainment Technology Pathway

This career academy provides students with the opportunity to learn the elements of game design and how games reflect the social, economic, and political elements of a culture. Students learn storyboarding and character animation and have the opportunity to create digital games and mobile game apps.

**Students are required to submit a Huntsville City Schools Career and Technical Education Traveling Programs Application to be accepted into this program.**

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### 9th Grade

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<tr>
<td>Information Technology Computer Programming Basics (520006) AND Evolution of Games (400030)</td>
<td>Game Design (400035) and Screenwriting (400034)</td>
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### 10th Grade

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<tr>
<td>GameMaker Programming (400033) AND 3D Modeling (400036)</td>
<td>Unity 3D Programming (400038) AND Game Production and Marketing (400039)</td>
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### 11th Grade

### 12th Grade

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<td>CTE Lab in Information Technology (520049) AND Senior Career Pathway Project-Information Technology (520037)</td>
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### Certification Opportunities

- Adobe Certified Associate-Flash
- Microsoft Technology Associate (MTA)-Software Development Fundamentals

### CAREER PREPAREDNESS (400025)

**Grade:** 9  
**Credit:** 1.0  
**Prerequisite(s):** none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

### INFORMATION TECHNOLOGY COMPUTER PROGRAMMING BASICS (520006)

**Grades:** 10  
**Credit:** 0.5  
**Prerequisite(s):** none  
**Fee(s):** $20 SkillsUSA dues (paid once a year, first semester - no waiver)

A one-half credit course using QBasic programming language where students will learn fundamental programming functions before progressing to a more advanced programming language in the future.
EVOLUTION OF GAMES (400030) SEMESTER
Grades: 10 Credit: 0.5
Prerequisite(s): none
Fee(s): $20 SkillsUSA dues (dues are paid once a year, first semester - no waiver) total $20

This course explains the elements of game design and how games reflect the social, economic, political, and religious elements of a culture. Students will build game prototypes and playtest games.

GAME DESIGN - ZULAMA (400035) SEMESTER
Grades: 10 Credit: 0.5
Prerequisite(s): Evolution of Games
Fee(s): $20 SkillsUSA dues (paid once a year, first semester - no waiver) total $20

Game Design is a half-credit course that provides students with experiences and instruction in applying the fundamental skills and techniques in board game design. Students will identify the professional process of board game design; articulate the role of a board game designer apply the elements of board game design when modifying an existing board game; and develop and refine a board game prototype using an iterative process.

SCREENWRITING - ZULAMA (400034) SEMESTER
Grades: 10 Credit: 0.5
Prerequisite(s): Game Design
Fee(s): $20 SkillsUSA dues (paid once a year, first semester - no waiver) $20

Screenwriting is a half-credit course designed for students interested in creative writing, awareness, provisional acting, collaborative storytelling, and creative self-confidence as they craft their own original story. Students will identify the elements of dramatic storytelling; articulate the importance of conflict in story structure; create one or more acts built around an interesting theme that incorporates rising action; and develop well defined archetype and hero characters.

GAMEMAKER PROGRAMMING - ZULAMA (400033) SEMESTER
Grades: 11 Credit: 0.5
Prerequisite(s): Evolution of Games
Fee(s): $20 SkillsUSA dues (paid once a year, first semester - no waiver)

GameMaker Programming is a half-credit course that uses basic programming knowledge to build two-dimensional casual games. Students will apply GML scripting language in game building activities; identify similarities between Python, Java, and C++ programming; create simple 2D designs using GameMaker; problem-solve to debug programming errors; build 2D objects using GameMaker Language; and refine the iterative process (plan, implement, review, adjust).
3D MODELING - ZULAMA (400036) SEMESTER
Grades:  11          Credit:  0.5
Prerequisite(s):  GameMaker Programming
Fee(s):  $20 SkillsUSA dues (paid once a year, first semester - no waiver)

3D Modeling is a half-credit course designed to allow students to learn the 3D modeling techniques used in movies, visual effects, video games, cartoons, commercials, and animation. Students will identify and navigate the different areas of the interface; identify and navigate the viewports; use the navigation tools to efficiently design primitive objects; make effective use of 3D space; and effectively transform objects in 3D space.

UNITY 3D PROGRAMMING - ZULAMA (400038) SEMESTER
Grades:  11          Credit:  0.5
Prerequisite(s):  3D Modeling
Fee(s):  $20 SkillsUSA dues (paid once a year, first semester - no waiver)

Unity 3D Programming is a half-credit course that uses advanced programming knowledge to build three-dimensional (3D) casual games. Students will learn to navigate the Unity 3D game development engine; apply Unity JavaScript language to build gaming interactivity; create simple 3D designs using Unity; and refine the iterative process (plan, implement, review, adjust).

GAME PRODUCTION AND MODELING - ZULAMA (400039) SEMESTER
Grades:  11          Credit:  0.5
Prerequisite(s):  Unity 3D Programming
Fee(s):  $20 SkillsUSA dues (dues are paid once a year, first semester - no waiver)

Game Production and Marketing is a half-credit course designed to give students understanding of the video game industry by learning the tools, skills, and methodologies used to create and produce video games. Students will identify how target audience and marketing decisions affect game design; analyze target audience expectations related to game design; use research tools to gather information about potential markets; develop and implement a marketing plan.

CTE LAB IN INFORMATION TECHNOLOGY (520049)
Grades:  12          Credit:  0.5
Prerequisite(s):  Game Production and Marketing
Fee(s):  $20 SkillsUSA dues (paid once a year, first semester - no waiver)

This one-credit course is an extended laboratory experience to address the advancement and specialization of careers within Information Technology through individualized or small group instruction. This course allows students to enhance the essential and intermediate skills learned through program courses within the career cluster and prepare for industry credentialing opportunities.

SENIOR CAREER PATHWAY PROJECT-INFORMATION TECHNOLOGY (520037)
Grades:  12          Credit:  0.5
Prerequisite(s):  Game Production and Marketing
Fee(s):  $20 SkillsUSA dues (paid once a year, first semester - no waiver)

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.
The program’s interdisciplinary courses engage students in compelling, real-world challenges. As students work together to design solutions, they learn computational thinking – not just how to code – and become better thinkers and communicators. Students take from the courses in-demand knowledge and skills they will use in high school and for the rest of their lives, on any career path they take.

PLTW Computer Science courses are part of the AP + PLTW Computer Science Pathway. Click the link to read more on this pathway.

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<td>Cyber Security PLTW (520051)</td>
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Certification Opportunities:
- Certified Internet Web (CIW) - JavaScript Specialist
- Microsoft Technology Associate (MTA) - HTML5 Application Development
- Microsoft Technology Associate (MTA) - Software Development Fundamentals
- Microsoft Technology Associate (MTA) - Software Testing Fundamentals
- Oracle Certified Associate (OCA) - Java Programmer
AP + PLTW Course Requirements

Take a total of three courses: one AP course, one PLTW course, and an additional AP or PLTW course from the list below. Course Descriptions for AP courses are listed in the core academic subject areas.

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<tr>
<th>AP Courses</th>
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<td>Computer Science Principles, AP</td>
<td>Introduction to Computer Science PTLW</td>
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<td>Computer Science Essentials PTLW</td>
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**CAREER PREPAREDNESS (400025)**

**Grade:** 9  
**Credit:** 1.0  
**Prerequisite(s):** none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

**COMPUTER SCIENCE ESSENTIALS PTLW (520046)**

**Grade:** 9  
**Credit:** 1.0  
**Prerequisite(s):** none  
**Fee(s):** $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

Computer Science Essentials is a one-credit course that introduces students to coding fundamentals through an approachable, block-based programming language where they will have early success in creating usable apps. As students sharpen their computational thinking skills, they will transition to programming environments that reinforce coding fundamentals by displaying block programming and text based programming side-by-side. Finally, students will learn the power of text-based programming as they are introduced to the Python® programming language.

**COMPUTER SCIENCE PRINCIPLES, AP (520018)**

**Grade:** 10  
**Credit:** 1.0  
**Prerequisite(s):** Computer Science Essentials PTLW  
**Fee(s):** $20 SkillsUSA dues (paid once a year, first semester - no waiver)

College-level advanced course following the curriculum established by the College Board Advanced Placement (AP) program for computer science; focuses on the innovative and multidisciplinary aspects of computing as well as the computational thinking practices that help students see how computing is relevant to many areas of their everyday lives; introduces students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts.
COMPUTER SCIENCE A, AP (520007)
Grade: 11       Credit: 1.0
Prerequisite(s): Computer Science Principles, AP
Fee(s): $20 SkillsUSA dues (paid once a year, first semester - no waiver)

A one credit college-level course following the curriculum established by the College Board Advanced Placement (AP) Program for computer science; emphasizes object-oriented programming methodology with a concentration on problem-solving and algorithm development.

CYBERSECURITY PLTW (520051)
Grade: 12       Credit: 1.0
Prerequisite(s): Computer Science Principles, AP
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

Cybersecurity PLTW is a one-credit course that introduces students to the tools and concepts of cybersecurity and encourages them to create solutions that allow people to share computing resources while protecting privacy. Nationally, computational resources are vulnerable and frequently attacked; in Cybersecurity, students solve problems by understanding and closing these vulnerabilities. This course raises students’ knowledge of and commitment to ethical computing behavior. It also aims to develop students’ skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely.
Manufacturing Cluster

Industrial Robotics Pathway

Industrial Robotics prepares students to apply mathematical and scientific principles to the design, development, and operational evaluations of computer controlled electro-mechanical systems and products with embedded in electronics, sensors, and actuators in robotics and automated systems.

Students are required to submit a Huntsville City Schools Career and Technical Education Traveling Programs Application to be accepted into this program.

Physical Career Academy Location(s) Where Available*

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9th Grade
Career Preparedness (400025)

10th Grade
1st Semester
Intro to Robotics (540031)
AND
2nd Semester
Robotics Applications (540032)

11th Grade
1st Semester
Robotics and Automation (540068)
AND
2nd Semester
Embedded Arduino Controls and Robotics Applications (540067)

12th Grade
1st Semester
CTE Lab in Manufacturing (540071)
AND
2nd Semester
Senior Career Pathway Project- Manufacturing (540051)

Certification Opportunities
• Electronics Technicians Association-Student Electronics Technician
• NCCER Core
• NCCER Electronic Systems Technician, Electronics

CAREER PREPAREDNESS (400025)
Grade: 9 Credit: 1.0
Prerequisite(s): none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

INTRODUCTION TO ROBOTICS (540031)
Grade: 9 Credit: 1.0
Prerequisite(s): none

Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total
A one-credit course designed to introduce students to the fundamentals of robotics. The course emphasizes fundamentals of electrical current, digital circuits, electronic control systems, and the design and operation of robotic systems.
ROBOTICS APPLICATIONS (540032)
Grade: 10  Credit: 1.0
Prerequisite(s): Intro to Robotics
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

A one-credit course with emphasis placed on the applications of a variety of robotic systems. Students will design and construct a robotic system with peripheral devices.

ROBOTICS AND AUTOMATION (540068)
Grades: 11  Credit: 1.0
Prerequisite(s): Robotics Applications
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

This course is designed to meet the growing societal need to enhance science, technology, engineering, and mathematics (STEM) instruction in classrooms. This course will meet the call for integrated learning programs that allow teachers to engage students in creative and meaningfully ways to utilize the automation of robotics while also meeting today’s rigorous academic standards.

EMBEDDED ARDUINO CONTROLS AND ROBOTICS APPLICATIONS (540067)
Grades: 11  Credit: 1.0
Prerequisite(s): Robotics and Automation
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

This course is designed for students to utilize embedded controllers and systems to be prepared for work in the evolving Health Care, Industrial, Consumer, Automotive and Defense/Aerospace industries, Electronics, and Robotics technologies fields. With complex systems and industries mentioned, the 21st Century Workforce must be able to meet the technological challenges by having individuals trained in electronics embedded systems and sensor technologies.

CTE LAB IN MANUFACTURING (540071)
Grade: 12  Credit: 1.0
Prerequisite(s): Embedded Arduino Controls and Robotics Applications
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

This one-credit course is an extended laboratory experience to address the advancement and specialization of careers within Manufacturing through individualized or small group instruction. This course allows students to enhance the essential and intermediate skills learned through program courses within the career cluster and prepare for industry credentialing opportunities.

SENIOR CAREER PATHWAY PROJECT-MANUFACTURING (540051)
Grade: 12  Credit: 1.0
Prerequisite(s): Embedded Arduino Controls and Robotics Applications
Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.
Precision Machining Pathway

This career academy provides specialized classroom and laboratory experiences for students who are entering the field of manufacturing and engineering technology. Instruction is provided in the areas of blueprint reading, safety, bench work, lathe work, millwork, grinding, drill press, and Computer Numerical Control (CNC) programming. Emphasis is given to the use of precision measuring tools and gauges. Course content reflects the National Skills Standards of the National Institute for Metalworking Skills. Hands-on work experiences and SkillsUSA leadership activities enhance classroom instruction.

Students are required to submit a Huntsville City Schools Career and Technical Education Traveling Programs Application to be accepted into this program.

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<tr>
<td>Career Preparedness (400025)</td>
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<tr>
<td>1st semester</td>
<td>Introduction to Mill, Drill Press, and Surface Grinder (540048)</td>
<td>1st semester</td>
<td>Introduction to Computer Numerical Control (540042)</td>
<td>• NIMS Level 1 Registration</td>
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<td>2nd semester</td>
<td>Intermediate Mill and Surface Grinder (540050)</td>
<td>2nd semester</td>
<td>Intermediate Computer Numerical Control (540043)</td>
<td>• NIMS Level 1 Measurement, Materials, and Safety</td>
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<td>AND</td>
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<td>• NIMS Level 1 Manual Milling Skills I</td>
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<td>• NIMS Level 1 Turning Operations: Turning Between Centers</td>
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CAREER PREPAREDNESS (400025)
Grade: 9  Credit: 1.0
Prerequisite(s): none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

INTRODUCTION TO MILL, DRILL PRESS, AND SURFACE GRINDER (540048)
Grade: 10  Credit: 1.0
Prerequisite(s): none
Fee(s): $35 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $55 total

Introduction to Mill, Drill Press, and Surface Grinder is a course that introduces students to manufacturing processes and job opportunities for students who are pursuing careers in manufacturing. Students use critical-thinking skills and principles of science, mathematics, and safety. Topics include milling techniques, drill press techniques, and grinding techniques. Career and technical student organizations, SkillsUSA are integral, co-curricular components of each career and technical education course. NIMS (National Institute for Metal Working Skills) credentials can be earned while enrolled in this course.

INTERMEDIATE MILL AND SURFACE GRINDER (540050)
Grade: 10  Credit: 1.0
Prerequisite(s): Introduction to Mill, Drill Press, and Surface Grinder
Fee(s): $35 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $55 total

Intermediate Mill and Surface Grinder is a course that introduces manufacturing processes and job opportunities for students who are pursuing careers in manufacturing. Students use critical-thinking skills and principles of science, mathematics, and safety. Topics include instruction in advanced milling and grinding operations. Student instruction in manufacturing reflects the skill standards of the National Institute for Metalworking Skills (NIMS). Career and technical student organizations, SkillsUSA are integral, co-curricular components of each career and technical education course. NIMS (National Institute for Metal Working Skills) credentials can be earned while enrolled in this course.
INTRODUCTION TO COMPUTER NUMERICAL CONTROL (540042)
Grade: 11  Credit: 1.0
Prerequisite(s): Intermediate Mill and Surface Grinder
Fee(s): $35 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $55 total

Introduction to Computer Numerical Control (CNC) is a course that introduces manufacturing processes and job opportunities for students who are pursuing careers in manufacturing. Students use critical-thinking skills and principles of science, mathematics, and safety. Topics include CNC programming and CNC operations. Standards are based on National Institute for Metalworking Skills (NIMS) Level I CNC Mill and NIMS Level I CNC Lathe. Career and technical student organizations, SkillsUSA are integral, co-curricular components of each career and technical education course. NIMS (National Institute for Metal Working Skills) credentials can be earned while enrolled in this course.

INTERMEDIATE COMPUTER NUMERICAL CONTROL (540043)
Grade: 11  Credit: 1.0
Prerequisite(s): Introduction to Computer Numerical Control
Fee(s): $35 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $55 total

Intermediate Computer Numerical Control (CNC) is a course that introduces students to manufacturing processes and job opportunities for students who are pursuing careers in manufacturing. Students use critical-thinking skills and principles of science, mathematics, and safety. Topics include advanced CNC programming, setup, and proper operations. Students receive instruction regarding skills standards of the National Institute for Metalworking Skills (NIMS). Career and technical student organizations, SkillsUSA are integral, co-curricular components of each career and technical education course. NIMS (National Institute for Metal Working Skills) credentials can be earned while enrolled in this course.

CAD AND COMPUTER AIDED MANUFACTURING I (540044)
Grade: 12  Credit: 1.0
Prerequisite(s): Intermediate Computer Numerical Control
Fee(s): $35 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $55 total

Computer-Aided Design and Computer-Aided Manufacturing (CAD-CAM) I is a course that introduces manufacturing processes and job opportunities for students who are pursuing careers in manufacturing. Students use critical-thinking skills and principles of science, mathematics, and safety. Topics include CAD-CAM safety, mathematic concepts, computer proficiency, programing CAM software, manufacturing of parts, and creating a two-dimensional design. Career and technical student organizations, SkillsUSA are integral, co-curricular components of each career and technical education course.
CAD AND COMPUTER AIDED MANUFACTURING II (540045)

Grade: 12  Credit: 1.0

Prerequisite(s): CAD and Computer Aided Manufacturing I

Fee(s): $35 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $55 total

Computer-Aided Design and Computer-Aided Manufacturing (CAD-CAM) II is a course that introduces manufacturing processes and job opportunities for students who are pursuing careers in manufacturing. Students use critical-thinking skills and principles of science, mathematics, and safety. Topics include CAD-CAM safety, advanced mathematics concepts, CADCAM project development, computer numerical control (CNC) mill and lathe procedures, three-dimensional tool path operations, and verification. Career and technical student organizations, SkillsUSA are integral, co-curricular components of each career and technical education course.
Marketing Cluster

## Sports and Entertainment Marketing Pathway

The marketing program prepares learners for careers in planning, managing and performing marketing activities to reach organizational objectives. Marketing-related jobs are vital for companies, nonprofit groups, and organizations. Job duties in this career cluster can include brand promotion, sales, merchandising, marketing communications, and market research. As companies find it increasingly important to focus on community outreach and customer relations, the need for marketing professionals will increase. Rigorous instruction is provided to equip learners with knowledge and skills for college and career readiness.

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<tr>
<td></td>
<td>Career Preparedness (400025)</td>
<td>Internet Marketing (550012)</td>
<td>Sports and Entertainment Marketing Fundamentals (550013)</td>
<td>Advanced Sports and Entertainment Marketing (550023)</td>
<td>Microsoft Office&lt;br&gt;  - Excel Expert&lt;br&gt;  - Word Expert&lt;br&gt;  - Microsoft Office Specialist (MOS)&lt;br&gt;  <em>Two of the following areas are REQUIRED:</em>&lt;br&gt;  - Access&lt;br&gt;  - Excel&lt;br&gt;  - Outlook&lt;br&gt;  - PowerPoint&lt;br&gt;  - SharePoint&lt;br&gt;  - Word&lt;br&gt;  - Adobe Certified Associate (ACA)</td>
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</table>

### CAREER PREPAREDNESS (400025)

**Grade:** 9  **Credit:** 1.0  **Prerequisite(s):** none  

*A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.*
INTERNET MARKETING (550012)
Grade: 10  Credit: 1.0
Prerequisite(s): Business Communication and Technology
Fee(s): $10 FBLA dues (paid once a year, first semester - no waiver)

Internet Marketing is a one-credit course which focuses on applying tools, strategies, and processes to communicate digitally with targeted customers. Emphasis is placed on creating, implementing, and critiquing online advertising, email marketing, websites, social media, mobile marketing, search-engine optimization, video/images, and podcasts/webcasts. Students will apply project management techniques to guide and control digital communications efforts. They will also create and repurpose content for use in digital environments. Technology, employability skills, leadership and communications will be incorporated in classroom activities. The student organization, Future Business Leaders of America (FBLA), is an integral part of the curriculum and FBLA projects will be included in the course.

SPORTS AND ENTERTAINMENT MARKETING (550013)
Grade: 11  Credit: 1.0
Prerequisite(s): Internet Marketing
Fee(s): $10 FBLA dues (paid once a year, first semester - no waiver)

Sports and Entertainment Marketing is a one credit specialized course designed to offer students an opportunity to gain knowledge and develop skills related to the growing sports and entertainment industry. Sports Marketing addresses such diverse products as the sporting event itself, its athletes, sports facilities or locations, sporting goods, personal training, and sports information. Entertainment marketing includes events such as fairs, concerts, trade shows, festivals, plays, product launches, and causes. Students will develop skills in the areas of merchandising, advertising, public relations/publicity, event marketing, sponsoring, ticket distribution, and career opportunities as they relate to the sports entertainment industry. Students will foster a realistic understanding of the business environment in which marketing activities are performed and develop an understanding and appreciation of business ethics. Technology, employability skills, leadership and communications will be incorporated in classroom activities. The student organization, Future Business Leaders of America (FBLA), is an integral part of the curriculum and FBLA projects will be included in the course.

ADVANCED SPORTS AND ENTERTAINMENT MARKETING (550023)
Grade: 12  Credit: 1.0
Prerequisite: Sports and Entertainment Marketing
Fee(s): $10 FBLA dues (paid once a year, first semester - no waiver)

Advanced Sports and Entertainment Marketing is a one-credit specialized course designed to help students gain knowledge and develop skills in determining the economic impact of sports and entertainment events, price setting, research, marketing, positioning, product/service management, and promotion and sales strategies. Throughout the course, students are presented problem-solving situations for which they must apply academic and critical-thinking skills. Sports and Entertainment Marketing is a required prerequisite for this course. The student organization, Future Business Leaders of America (FBLA), is an integral part of the curriculum and FBLA projects will be included in the course.
STEM Cluster

Green Power Innovations in Science and Technology Pathway

This program is designed for students interested in pursuing a career in science, technology, engineering, and mathematics (STEM). This STEM program will utilize Green Power to provide students with the knowledge and hands on experiences they need to be successful in the new global work force. Emphasis is placed on challenges that involve solving complex problems and designing real solutions to build an electric car.

Students are required to submit a Huntsville City Schools Career and Technical Education Traveling Programs Application to be accepted into this program.

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<tr>
<td>Career Preparedness (400025) AND 1st Semester Greenpower F24 Engineering Design &amp; Racing Challenge I (590306) AND 2nd Semester Greenpower F24 Engineering Design &amp; Racing Challenge II (590307)</td>
<td>1st Semester The Nature of Science and Technology (590301) AND 2nd Semester Core Applications of Science and Technology (590302)</td>
<td>1st Semester Creativity and Innovations (590304) AND 2nd Semester Design for the Productions of Advanced Products (590404)</td>
<td>1st Semester CTE Lab in STEM (560118) AND 2nd Semester Senior Career Pathway Project-STEM (560111)</td>
<td>• Solid Edge Certified Associate • Solid Works • AutoCAD</td>
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CAREER PREPAREDNESS (400025)
Grade: 9 Credit: 1.0
Prerequisite(s): none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.
GREENPOWER F24 ENGINEERING DESIGN AND RACING I (590306)
Grade: 9  Credit: 1.0
Prerequisite(s): none
Fee(s): $30 course fee, $15 TSA Dues (paid once a year, first semester - no waiver) $45 total

Greenpower F24 Engineering Design & Racing Challenge I is a one-credit course that builds on the skills introduced in the Introduction to Greenpower course. Students use design software to design, build, and race an electric car while applying engineering and manufacturing skills in a relevant manner. Students also learn to apply leadership and collaboration skills within a competitive environment.

GREENPOWER F24 ENGINEERING DESIGN AND RACING II (590307)
Grade: 9  Credit: 1.0
Prerequisite(s): Greenpower F245 Engineering Design and Racing I
Fee(s): $30 course fee, $15 TSA Fee (paid once a year, first semester - no waiver) $45 total

Greenpower F24 Engineering Design & Racing II is a one-credit course that builds on the skills learned in Greenpower F24 Engineering Design & Race I course. Students use design software to design, build, and race an electric car while applying engineering and manufacturing skills in a relevant manner. Students also learn to apply leadership and collaboration skills within a competitive environment. Greenpower F24 Engineering Design & Race I is a required prerequisite for this course.

THE NATURE OF SCIENCE AND TECHNOLOGY (590301)
Grade: 10  Credit: 1.0
Prerequisite(s): Intermediate Engineering Design
Fee(s): $30 course fee, $15 TSA dues (paid once a year, first semester - no waiver) $45 total

This is a contextual-based course that introduces students to the core fundamental concepts of science and technology through authentic projects. Through these projects, students will develop an understanding of the relationship between the physical, biological, and social world. Students will gain an understanding of the differences between science and technology and learn that technology is a process for applying science. Students will develop a deeper understanding of scientific inquiry and the engineering design process when solving real-world problems. Students will experience the interaction of science, technology, engineering, math, and literacy through a problem-based learning environment. Finally, the process will require students to use mathematics to analyze costs, develop budgets and make precise measurements to successfully implement project goals.
CORE APPLICATION OF SCIENCE AND TECHNOLOGY (590301)
Grade: 10  Credit: 1.0
Prerequisite(s): none
Fee(s): $30 course fee, $15 TSA dues (paid once a year, first semester - no waiver) $45 total
This course uses the concepts learned from Course 1 to further develop students’ problem-solving strategies and skills needed by the 21st-century workforce. Students will continue to explore emerging technologies and techniques in the context of addressing authentic projects. Key concepts introduced in this course include sustainability and environmental trends, systems thinking, and trend analysis and prediction. Through engagement, students will experience the necessary connection between literacy, mathematics, and science in a variety of hands-on, real-world projects requiring them to apply academic and technical concepts and skills and technology to complete.

CREATIVITY AND INNOVATIONS (590304)
Grade: 11  Credit: 1.0
Prerequisite(s): none
Fee(s): $30 course fee, $15 TSA dues (paid once a year, first semester - no waiver) $45 total
This course will allow students to brainstorm, use invention, innovation, creativity, predictive analysis and use technology to solve real-world problems. Dimensions covered will include research and development, troubleshooting, experimentation, design failures, patents and trademarks, and design under constraints.

DESIGN FOR THE PRODUCTION OF ADVANCED PRODUCTS (590404)
Grade: 11  Credit: 1.0
Prerequisite(s): Engineering Design and Manufacturing
Fee(s): $30 course fee, $15 TSA dues (paid once a year, first semester - no waiver) $45 total
Students will create plant designs to process and automatically assemble materials into new products. Students follow the process of developing and producing a new product from prototype to final product. They will accomplish this by creating a production flow plan that allows for the mass production of the product. Students will analyze and evaluate all aspects of the design and production processes with an emphasis on clean, lean, and green production. Students will utilize data acquisition, quality control processes and Six Sigma methodology to control production.

CTE LAB IN STEM (560118)
Grade: 12  Credit: 1.0
Prerequisite(s): Design for the Production of Advanced Products
Fee(s): $30 course fee, $15 TSA dues (paid once a year, first semester - no waiver) $45 total
This one-credit course is an extended laboratory experience to address the advancement and specialization of careers within STEM through individualized or small group instruction. This course allows students to enhance the essential and intermediate skills learned through program courses within the career cluster and prepare for industry credentialing opportunities.
SENIOR CAREER PATHWAY PROJECT – SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH (560111)

Grade: 12  Credit: 1.0

Prerequisite(s): Design for the Production of Advanced Products

Fee(s): $30 course fee, $15 TSA dues (paid once a year, first semester - no waiver) $45 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.
This career academy provides students with the opportunity to participate in hands-on project-based learning with real life application. Students learn the engineering design process, computer assisted design, and technical documentation. Students work collaboratively to solve open ended engineering challenges.

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### Career Academy Course Offerings

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<td>10th</td>
<td>Foundations of Engineering (560011)</td>
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<td>Engineering Applications (560012)</td>
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<tr>
<td>12th</td>
<td>Engineering Research and Design (560014)</td>
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COURSE DESCRIPTIONS

CAREER PREPAREDNESS (400025)
Grade: 9    Credit: 1.0
Prerequisite(s): none

A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

FOUNDATIONS OF ENGINEERING (560011)
Grade: 9    Credit: 1.0
Prerequisite(s): Career Preparedness
Fee(s): $60 course fee, $15 TSA dues (paid once a year, first semester - no waiver) $75 total

A one credit course designed to offer an overview of the engineering profession and fundamental skills utilized in general engineering.

ENGINEERING APPLICATIONS (560012)
Grade: 10    Credit: 1.0
Prerequisite(s): Foundations of Engineering
Fee(s): $60 course fee, $15 TSA dues (paid once a year, first semester - no waiver) $75 total

This course is designed to explore the application of engineering principles in various technological areas including construction, transportation, communication, manufacturing, and bioengineering.

ENGINEERING RESEARCH AND DESIGN (560014)
Grade: 12    Credit: 1.0
Prerequisite(s): Foundations of Engineering
Fee(s): $60 course fee, $15 TSA dues (paid once a year, first semester - no waiver) $75 total

A one-credit research course in the engineering field. Students conduct research and design engineering projects to enhance their abilities and expand their interest in the field of engineering.
Work Based Learning Cluster

Cooperative Education

Work-Based Learning is a structured component of the Career and Technical Education (CTE) curriculum that integrates classroom instruction with productive, progressive, supervised, work-based experiences/apprenticeships (paid) and internships (unpaid) that may be related to student’s career objectives. Content is planned for students through a cooperative arrangement between the school and employer as a component of work-based learning.

Work-Based Experiences/Apprenticeships are paid work experiences and Work-Based Experiences/Internships are unpaid work experiences for eligible 11th and 12th grade students. Student work hours and wages earned are monitored and documented by the student, employer, and the coordinator. Students may earn one or more credits; 140 hours is required for each credit earned.

Prerequisites

- Eligible 11th and 12th grade students.
- Work-Based Learning will not be placed on a student’s schedule until the application process is complete and the student is approved by the Work-Based Learning Coordinator.
- Student is at least 16 years of age.
- It is recommended, but not required, that a student obtain concentrator status, (two courses within a CTE program) prior to enrollment in cooperative education. Students who have not obtained concentrator status must have successfully completed a minimum of one CTE credit or a career preparedness course.
- Student must have a clearly defined career objective.
- Student has an acceptable attendance, grade, and discipline record as validated by the Coordinator Minimum 2.0 GPA).  
- Possesses the knowledge, skills, behavioral qualities, and abilities required for successful employment.
- Have three educator recommendations that may include the teacher of the career cluster course, if applicable.

Scheduling Requirements of Work-Based Learning

- Students should be scheduled according to course numbers below. Students should not be put in duplicate course numbers in the 11th or 12th grade.
- First use all 4 non-seminar course codes then use ONE of the Seminar course codes the first semester of the Senior year and use the last Seminar course code for the second semester of the Senior year.
COOPERATIVE EDUCATION WORK-BASED EXPERIENCE – FIRST CREDIT (400122)

Grades: 11 and 12  Credit: 1.0

A one-credit work-based experience requiring a minimum of 140 continuous and successful hours of employment performed under the supervision of a workplace mentor and the work-based learning/cooperative education coordinator.

COOPERATIVE EDUCATION WORK-BASED EXPERIENCE – SECOND CREDIT (400133)

Grades: 11 and 12  Credit: 1.0

A one-credit work-based experience requiring a minimum of 140 continuous and successful hours of employment (average of four hours per week) performed under the supervision of a workplace mentor and the work-based learning/cooperative education coordinator.

COOPERATIVE EDUCATION WORK-BASED EXPERIENCE – THIRD CREDIT (400144)

Grades: 11 and 12  Credit: 1.0

A one-credit work-based experience requiring a minimum of 140 continuous and successful hours of employment (average of four hours per week) performed under the supervision of a workplace mentor and the work-based learning/cooperative education coordinator.

COOPERATIVE EDUCATION WORK-BASED EXPERIENCE – FOURTH CREDIT (400212)

Grades: 11 and 12  Credit: 1.0

A one-credit work-based experience requiring a minimum of 140 continuous and successful hours of employment (average of four hours per week) performed under the supervision of a workplace mentor and the work-based learning/cooperative education coordinator.

COOPERATIVE EDUCATION SEMINAR/ WORK-BASED EXPERIENCE – FIFTH CREDIT (400031)

Grades: 12 (1st Semester)  Credit: 1.0

A one-credit work-based experience requiring a minimum of 270 continuous and successful hours of employment (average of 15 hours per week) performed under the supervision of a workplace mentor and the work-based learning/cooperative education coordinator. Students enrolled in work-based experiences are required to participate in Cooperative Education Seminar one class period per week.

COOPERATIVE EDUCATION SEMINAR/ WORK-BASED EXPERIENCE – SIXTH CREDIT (400032)

Grades: 12 (2nd Semester)  Credit: 1.0

A one-credit work-based experience requiring a minimum of 270 continuous and successful hours of employment (average of 15 hours per week) performed under the supervision of a workplace mentor and the work-based learning/cooperative education coordinator. Students enrolled in work-based experiences are required to participate in Cooperative Education Seminar one class period per week.
Magnet Programs Course Descriptions

The magnet programs within Huntsville City Schools offer students and families a choice by focusing on innovative programs that have a distinct theme and a curriculum that aligns with this theme. Students are encouraged to select a program that fits their interests and learning styles.

Columbia High School offers the International Baccalaureate Middle Years Programme for all 9th and 10th grade students, the International Baccalaureate Diploma Programme in the 11th and 12th grades, and the International Baccalaureate Career Related Program in the 11th and 12th grades.

The Jemison High School College Academy offers students the opportunity to earn up to two years of college credit through courses taught by college professors while concurrently earning their high school diploma.

The Creative and Performing Arts Magnet at Lee High School offers programs in dance, theatre performance, technical theatre, creative writing, photography, video/broadcast, visual art, orchestra, and vocal performance.

New Century Technology High School provides students the opportunity to participate in coordinated advanced level core and career courses in the areas of computer science, engineering, and biomedical science. These specialized programs facilitate students graduating with an area of concentration that may include as many as 19 advanced level and specialized courses.

Since the students select the school, they develop a strong sense of community and school spirit. Ultimately, magnet schools offer educational excellence. All students must apply online and be accepted into these programs. Applications can be found on the Huntsville City Schools website during a specified time of the year.
All Columbia High School ninth and tenth grade students are participants in the International Baccalaureate (IB) Middle Years Programme (MYP). Therefore, in addition to the required core courses, ninth and tenth grade students at Columbia are required to take a Language Acquisition (French, German, or Spanish), Fine Arts, and Design course each year as part of MYP. The curriculum at Columbia High School follows the Alabama course of study for successful completion of the graduation requirements and the curriculum will continue to be aligned with Huntsville City Schools’ benchmarks and standards. However, in contrast to other HCS High Schools, at Columbia High School, the delivery and assessment of the course of study will reflect the learning objectives and interdisciplinary approach required by MYP.

In addition, all MYP students are encouraged to consider the Diploma Programme (DP) or Career-related Programme (CP) as a possibility in their academic plan. Please be advised there are requirements for a student to be eligible to be considered for the Diploma Programme or Career-related Programme.

Columbia High School is an authorized International Baccalaureate World School, currently offering the Middle Years Programme (MYP) for grades 9 and 10, the Diploma Programme (DP), and Career-related Programme (CP) for grades 11 and 12. Columbia High School accepts applications from rising 9th grade students who want to pursue MYP courses. Columbia also accepts applications from rising juniors who want to pursue the DP or CP.

The International Baccalaureate Mission Statement:

The International Baccalaureate Organization (IBO) aims to develop inquiring, knowledgeable, and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. To this end the IBO works with schools, governments, and international organizations to develop challenging programs of international education and rigorous assessment. These programs encourage students across the world to become active, compassionate, and lifelong learners who understand that other people, with their differences can also be right.

IB Middle Years Programme (MYP):

All Columbia High School 9th and 10th grade students are participants in the MYP. All 9th and 10th grade students complete 8 subjects each year including Language and Literature (English), Language Acquisition (French, German, or Spanish), Mathematics, Science, Individuals, and Societies (History), Physical Education, Fine Arts, and Design. Students who have successfully completed the 8th grade at the Academy for Science and Foreign Language may automatically transfer to Columbia High School to continue the MYP. Other Huntsville City Schools students interested in participating in the IB Programme may apply for acceptance through Huntsville City Schools.

The curriculum at Columbia High School follows the Alabama course of study for successful completion of the graduation requirements. The curriculum will continue to be aligned with Huntsville City Schools’ benchmarks and standards. The delivery and assessment of that information will reflect the learning objectives and interdisciplinary approach required by MYP.

All MYP students are encouraged to consider the Diploma Programme or Career-related Programme as a possibility in their academic plan. Please be advised there are requirements for a student to be eligible to be considered for the Diploma Programme or Career-related Programme.
**IB Diploma Programme (DP):**
The IB Diploma Programme provides a holistic education with emphasis on international understanding, critical thinking, and application of what is learned in the classroom to real world issues and problems, and development of genuine language skills. It is recognized internationally for its academically rigorous curriculum and viewed as qualification for university entrance. The DP consistently surpasses standard high school diplomas in university acceptance rates.

The curriculum includes six subject areas:

- Language A Language and Literature (English)
- Language B (Spanish, German, or French)
- Individuals and Society (History of the Americas)
- Sciences (Biology; Sports, Exercise, and Health Science; and Chemistry)
- Mathematics (Mathematics and Math Studies)
- IB Elective: Music, Art, or Psychology

Students MUST complete ONE course from each subject area and have THREE Higher Level (HL) courses and THREE Standard Level (SL) courses to be an IB Diploma Program candidate. In addition to the six subjects, three other requirements must be fulfilled:

- Theory of Knowledge course (challenges students to reflect critically on how they know what they believe to be facts or the truth)
- Creativity, Action, and Service (requires 18 months of meaningful volunteer experiences outside of school to include creativity, action, and service hours)
- Extended Essay (independent research culminating in a 4,000-word, structured research essay)

Students interested in applying for the Diploma Programme should do so their 10th grade year and must maintain a 3.0 GPA.

**IB Career-related Programme (CP):**
The IB Career-related Programme (CP) is an innovative education framework for students incorporating the vision and educational principles of the IB into a unique programme specifically tailored for students who wish to engage in career learning. The aim of the CP is to provide students with both an academic and practical foundation to support both their studies and specialized training, thereby ensuring their success in the workforce.

The CP framework is built around three interconnected elements. Students must participate in the following courses:

- At least two Diploma Programme courses (Students may choose from any DP core subject but is recommended the course be a higher level if students want to pursue college credit for their coursework.)
- A CP core that includes approaches to learning, community and service, language development and a reflection project (ethics)
- An approved career-related study (engineering, health science, or HCS career academy) completed during the junior and senior years
- Other courses needed for graduation purposes

Students interested in applying for the Career-related Programme should do so their 10th grade year and must maintain a 2.75 GPA.
GROUP 1: Language A - Language and Literature (HL)

LANGUAGE A, HL, IB (11th) (200022aa)
This college level course provides a study of non-fiction and argumentation, a survey of American literature from Modernism to Contemporary literature, as well as some world literature. Students will work to hone their close reading skills, persuasive and expository writing skills, and presentation skills. There are two internal standard assessments.

LANGUAGE A, HL, IB (12th) (200022)
This college level course provides a study of multiple works representative of different time periods from the 16th century to present and different genres and prepares students for detailed analysis and presentation of thematically linked world literature. At the end of the course. Students will have internal and external assessments as required by the IBO for the IB Diploma. Together the 11th grade and 12th grade IB English courses will meet the IB requirements for Language and Literature A (HL).

LANGUAGE A: Language and Literature, SL, IB (12th) (200065)
Emphasis on the critical study and interpretation of written and spoken texts from a wide range of literary and non-literary genres; skills of literary criticism; strong written and oral skills.

GROUP 2: Language B – Foreign Language (SL)

FRENCH, B, SL, IB/YEAR I (11th) (270029)
Students taking IB French Level III will be expected to speak, read, and write the French language. Students must take the same foreign language for two consecutive years in the Diploma Programme. Students will be assessed internally either during French III or French IV and will be assessed externally during French IV. The course aims to prepare students to continue the study of French during their next school year and as the students enroll in college.

FRENCH, B, SL, IB/YEAR II (12th) (270029aa)
French IV is a continuation of the French III course. Students will be assessed internally and externally at the end of the course with an oral exam. The goal of this course is to prepare students to be college ready.

GERMAN, B, SL, IB/YEAR I (11th) (270049)
Students take IB German Level III will be expected to speak, read, and write the German language. Students must take the same foreign language for two consecutive years in the Diploma Program. Students will be assessed internally either during German III or German IV and will be assessed externally during German IV. This course aims to prepare students to continue the study of German during their next school year and as the students enroll in college.

GERMAN, B, SL, IB/YEAR II (12th) (270049aa)
German IV is a continuation of the German III course. Students will be assessed internally and externally at the end of the course with an oral exam. The goal of this course is to prepare students to be college ready.
GERMAN, B, AB INITIO, SL/YEAR 1 (11th) (270048)
GERMAN, B, AB INITIO, SL/YEAR 2 (12th) (270048aa)
These programs follow the guideline for the Standard Level but are offered to students who have not previously taken two years of the same foreign language.

SPANISH, B, SL, IB/YEAR I (11th) (270160)
Students taking IB Spanish Level III will be expected to speak, read, and write the Spanish language. Students must take the same foreign language for two consecutive years in the Diploma Programme. Students will be assessed internally either during Spanish III or Spanish IV and will be assessed externally during Spanish IV. This course aims to prepare students to continue the study of Spanish during their next school year and as the students enroll in college.

SPANISH, B, SL, IB/YEAR II (12th) (270160aa)
Spanish IV is a continuation of the Spanish III course. Students will be assessed internally and externally at the end of the course with an oral exam. The goal of this course is to prepare students to be college ready.

SPANISH AB INITIO, SL, IB/YEAR I (11th) (270159)
SPANISH AB INITIO, SL, IB/YEAR II (12th) (270159aa)
These programs follow the guidelines for the Standard Level, but it is offered to students who have not previously had two years of the same foreign language.

GROUP 3: Individuals and Society

ECONOMICS, SL, IB (11th or 12th) (230056)
ECONOMICS, HL, IB/Year I (11th) (230057)
ECONOMICS, HL, IB/Year II (12th) (230057aa)
Emphasis on the content of economics including students’ development of a critical appreciation of human experience and behavior; varieties of physical, economic, and social environments that people inhabit; and, the history of social and cultural institutions.

HISTORY I, SL, IB (11th or 12th) (230033)
Emphasis on an understanding if history as a discipline, including the nature and diversity of its sources, methods, and interpretations; enables students to think critically in their reflection of the past.

HISTORY I, HL, IB (11th) (230034)
HISTORY II, HL, IB (12th) (230034aa)
This two-year course is a chronological survey of the United States, Latin America, and Canada. Students will study the political, economic, and cultural history of the nations of the Americas, with emphasis placed on the United States. The 11th grade focus will be on the early history and settlements of the Americas through the 19th century. The 12th grade focus will be on 20th century World History with an emphasis on three topics (causes, practices, and effects of war; the rise of the single party state; and the cold war).
GROUP 4: Experimental Science

BIOLOGY, HL, IB/YEAR I (11th) (220016)
BIOLOGY, HL, IB/YEAR II (12th) (220016aa)
This two-year course is a university prep course that includes biochemistry, cell biology, botany, genetics, evolution, ecology, and the scientific method. It requires 60 lab hours between the two years. The Group 4 project will be performed with all other IB experimental sciences at the beginning of the second year. Internal exams required include two independent labs completed in the second year.

CHEMISTRY, SL, IB/YEAR I (11th) (220066)
CHEMISTRY, SL, IB/YEAR II (12th) (220066aa)
This two-year course is a university prep course that includes quantitative chemistry, energetic kinetics equilibrium, oxidation reduction, and organic chemistry. It requires 60 lab hours between the two years. The Group 4 project will be performed with all other IB experimental sciences at the beginning of the second year. Internal exams required include two independent labs completed in the second year.

SPORTS, EXERCISE, AND HEALTH SCIENCE, SL, IB/Year I (220100)
SPORTS, EXERCISE, AND HEALTH SCIENCE, SL, IB/Year II (220100aa)
This course is a university prep course that includes anatomy and physiology, biomechanics, psychology, and nutrition, which are all studied in the context of sports, exercise, and health. Students are required to spend 40 hours in practical work including the group 4 project.

GROUP 5: Mathematics (SL)

MATHEMATICAL STUDIES, SL, IB (11th or 12th) (210028)
Math Studies is a one-year course taken in the 11th or 12th grade. This course provides a strong foundation in different math topics, for example, statistics, differential calculus, financial mathematics, probability, numbers and algebra, and functions. IB internal assessments and the IB external assessment will be included in this course.

MATHEMATICS, SL, IB/YEAR I (11th) (210029)
MATHEMATICS, SL, IB/YEAR II (12th) (210029aa)
The first-year course offers an in-depth study of elementary functions, limits, differential calculus, and integral calculus. The second-year course covers the topics of functions, trigonometry, exponential functions, matrices, vectors in 2 and 3 dimensions, statistics, and probability. The IB Internal Assessment for Mathematics will be given the second year. The students will be given the opportunity to research and write about a mathematical topic that interests them. External assessment is given at the end of their 12th grade year.
GROUP 6: Elective – Students must take one (SL) Course

MUSIC, SL, IB (11th) (280025)
MUSIC, SL, IB (12th) (280025aa)
IB SL music is a one-year course of study that gives the students an opportunity to explore and enjoy the diversity of music throughout the world and provides the students with required tools for musical discrimination and expression. Course content will include instruction in music history and appreciation, music theory, form and analysis, composition, and musical performance. The internal assessment requires students to present one of three options – creating, solo performing, or group performing and is included in the class. The external assessment occurs during the spring and is a written examination.

THEATER, SL, IB (11th or 12th) (280081)
Content relating to theater including an emphasis on creativity in the context of disciplined, practical research into the relevant genres and reflect an eclectic attempt to combine contrasting aesthetics and forms of assessment from around the world.

VISUAL ARTS, SL, IB (11th) (280105)
VISUAL ARTS, SL, IB (12th) (280105aa)
Students enrolled in this course will investigate past, present, and emerging forms of visual arts and engage in producing, appreciating, and evaluating the following: develop an understanding of visual arts from a local, national, and international perspective; in, and sensitivity to, the creation of works that reflect active and individual involvement; and take responsibility for the direction of their learning through the acquisition of effective working practices. By preparing for the examination students will also complete the graduation standards for the artistic creation/performance and artistic analysis/interpretation. IB internal and external assessments will be given. Only students who are accepted in the IB Diploma Programme may receive IB credit for this course.

PSYCHOLOGY, SL, IB (11th) (230073)
PSYCHOLOGY, SL, IB (12th) (230073aa)
PSYCHOLOGY, HL, IB/YEAR I (11th) (230074)
PSYCHOLOGY, HL, IB/YEAR II (12th) (230074aa)
DP psychology is SL if taught consecutively with an HL science. If an SL science is taken, then the student will enroll in HL psychology. The HL course is a two-year course and the SL is a one-year course in which the students learn to design and execute experiments, as well as to interpret their finding. Contents of this course include theories and recent research on human behavior from an empirical perspective. A primary emphasis of this course is on utilizing appropriate research to support points made in essays and class discussions. DP internal assessment includes a report of a simple experimental study conducted by the student. The DP external psychology exam will be given after the second year.
OTHER REQUIRED COURSES

THEORY OF KNOWLEDGE, IB (11th Grade) (SECOND SEMESTER) (230095) and
THEORY OF KNOWLEDGE, IB (12th Grade) (FIRST SEMESTER) (230095aa)

This is a required Diploma Programme course taken the second semester of the 11th grade year and the first semester of the 12th grade year. It is designed to foster an understanding of interdisciplinary studies and how we approach current issues. The objectives of the class will be assessed through an internal assessment which includes a class presentation on a Theory of Knowledge issue, and an external assessment including a formal TOK essay.

IB ENRICHMENT/FALL (802111aa)
IB ENRICHMENT/SPRING (802111ab)

The Diploma Programme Enrichment course is an additional class period offered as a study hall time period for Diploma Programme students to work on deadlines for the Diploma courses, Extended Essay, and Community Service.

ETHICS (11th GRADE) (SECOND SEMESTER) (230093) and
ETHICS (12th GRADE) (FIRST SEMESTER) (230093aa)

This is a required Career-Related Programme course taken the first semester of the 11th grade year and the second semester of the 12th grade year. It is designed to help students understand different learning styles and how to incorporate learning styles into different situations. The objectives will be assessed through class presentations, writing assignments, class participation, and the reflective project.
Jemison High School’s College Academy is a four-year program in which advanced, highly motivated students earn up to 60 hours (2 years) of college credit while simultaneously earning their high school diploma. Students begin taking college courses from UAH professors in 9th grade and continue through their senior year of high school. Through the College Academy, students are exposed to college curriculum and teaching styles and engage in structured immersive experiences on a college campus. The College Academy provides unprecedented educational benefits and financial savings for students and parents.

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<tr>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
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<tr>
<td>English, Grade 9, Honors (200006)</td>
<td>English 10, Honors (200010)</td>
<td>EH 101 College Writing I (903201aa)</td>
<td>EH 207 Readings in Literature/Culture I (903213aa)</td>
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<tr>
<td>Geometry, Honors (210011)</td>
<td>Algebra II with Trigonometry, Honors (210017aa)</td>
<td>EH 102 College Writing II (903202aa)</td>
<td>EH 208 Readings in Literature/Culture II (903214aa)</td>
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<tr>
<td>Biology, Honors (220012)</td>
<td>OR Precalculus (210020)</td>
<td>Precalculus (210020)</td>
<td>UAH math course based on UAH math placement test</td>
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<td>US History I, Honors (230017)</td>
<td>OR Precalculus, Honors (210020aa)</td>
<td>OR Precalculus, Honors (210020aa)</td>
<td>UAH Pre-Major math course (varies by student)</td>
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<td>College Academy Prep - 9 (802200ad)</td>
<td>Chemistry, Honors (220062)</td>
<td>BYS 119 Principles of Biology (901402)</td>
<td>Human A&amp;P (220026)</td>
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<tr>
<td>Career Preparedness (400025)</td>
<td>US History, AP (230022)</td>
<td>BYS 120 Organismal Biology (901403aa)</td>
<td>OR Environmental Science AP (220032)</td>
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<td>PSC 101 Intro to American Government (909801aa)</td>
<td>AP Physics (220057)</td>
<td>OR AP Physics I (220057)</td>
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<td>WLC 101S Intro to Foreign Lang I: Spanish (911600aa)</td>
<td>College Academy Prep – 10 (802200ae)</td>
<td>HY 103 World History to 1500 (905002aa)</td>
<td>OR AP Physics II (220058)</td>
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<td>WLC 102S Intro to Foreign Lang II: Spanish (911601aa)</td>
<td>Health (250002)</td>
<td>College Academy Prep - 11 (802200af)</td>
<td>HY 104 – World History Since 1500 (905003aa)</td>
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<tr>
<td>CM 113 – Intro to Rhetorical Communication (906602aa) OR TH 122 – Theater Appreciation (912403)</td>
<td>ARH 101 Art Survey: Renaissance-Modern (900605aa) OR MU 100 Intro to Music Literature (908200aa)</td>
<td>SOC 100 Intro to Sociology (911400aa)</td>
<td>Macroeconomics, AP (230054)</td>
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<td>PHL 102 Introduction to Ethics (905600aa)</td>
<td>College Academy Prep – 12 (802200ag)</td>
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CAREER PREPAREDNESS (400025)
Grade: 9  Credit: 1.0
Prerequisite(s): none
A one-credit course that is taught in Grades 9-12. The course prepares students with content knowledge and skills in the areas of career development and academic planning, computer skill application, and financial literacy. Also, this course is designed to meet the required 20-hour online experience.

COLLEGE ACADEMY PREP (802200ad) SEMESTER
Grade: 9  Credit: 0.5
Prerequisite(s): College Academy student
This one-semester course helps prepare students for the rigor of and success with college coursework by covering such topics as study skills, organization skills, note taking, time management, collaborative learning, essay writing, ACT/SAT prep and other college-ready skills.

COLLEGE ACADEMY PREP – 10th (802200ae)
COLLEGE ACADEMY PREP – 11th (802200af)
COLLEGE ACADEMY PREP – 12th (802200ag)
Grades: 10-12  Credit: 1.0
Prerequisite(s): College Academy student
This year-long course continues to help prepare students for the rigor of and success with college coursework by covering such topics as study skills, organization skills, note taking, time management, collaborative learning, essay writing, ACT/SAT prep and other college-ready skills.

ARH 101 – ART SURVEY: RENAISSANCE - MODERN (900605aa)
Grade: 10  Credit: 1.0  UAH Semester Hours: 3
Prerequisite(s): College Academy student
Survey of the Major Western works of art produced since the Renaissance. Relates stylistic change to changes in historical and cultural contexts. Introduces students to basic analytic tools of art history. (Note: This course or MU 100 will be taught but this had not yet been determined at time of print.)

BYS 119 – PRINCIPLES OF BIOLOGY (901402)
Grade: 10  Credit: 1.0  UAH Semester Hours: 4
Prerequisite(s): College Academy student
Lecture/Lab/Recitation. Introduction to biological principles of cell structure, function, metabolism, and reproduction. One two-hour lab and a one-hour recitation per week.

BYS 120 – ORGANISIMAL BIOLOGY (901403aa)
Grade: 10  Credit: 1.0  UAH Semester Hours: 4
Prerequisite(s): College Academy student, BYS 119
Lecture/Lab/Recitation. Discussion of biological function with special emphasis on contrasting strategies employed by organisms in meeting similar biological needs. One two-hour lab and a one-hour recitation per week.
CM 113 – INTRO TO RHETORICAL COMMUNICATION (911801aa)
Grade: 9    Credit: 1.0    UAH Semester Hours: 3
Prerequisite(s): College Academy student

Develops public speaking skills through an examination of rhetorical theory, training, and practice. Includes informative, persuasive, and other forms of speeches to prepare students for oral presentations in college and post-college ("real world") settings. (Note: This course or CM 122 will be taught but this had not yet been determined at time of print.)

CM 122 – THEATER APPRECIATION (912403)
Grade: 9    Credit: 1.0    UAH Semester Hours: 3
Prerequisite(s): College Academy student

Provides an overview of theatre including such elements as the play, the stage, the actor, history, and modern practices. Illuminates the hard work that goes into this complex art form—a good lesson for other "performances" students may face in their professional lives. Fine arts elective. (Note: This course or CM 113 will be taught but this had not yet been determined at time of print.)

EH 101 – COLLEGE WRITING I (903201aa)
Grade: 11    Credit: 0.5    UAH Semester Hours: 3
Prerequisite(s): College Academy student

Introduction to academic writing, critical reading, and rhetorical knowledge.

EH 102 – COLLEGE WRITING II (903202aa)
Grade: 11    Credit: 0.5    UAH Semester Hours: 3
Prerequisite(s): College Academy student; EH 101

Intermediate academic writing. Focuses on research questions and techniques, as well as critical engagement with published and student texts.

EH 207 – READINGS IN LITERATURE / CULTURE I (903213aa) SEMESTER
Grade: 12    Credit: 0.5    UAH Semester Hours: 3
Prerequisite(s): College Academy student; EH 102

Critical analysis of texts from ancient times through the Age of Discovery. The course introduces students to the methods of literary study through an examination of works in their social, historical, and philosophical contexts.

EH 208 – READINGS IN LITERATURE / CULTURE II (903214aa) SEMESTER
Grade: 12    Credit: 0.5    UAH Semester Hours: 3
Prerequisite(s): College Academy student; EH 102

Critical analysis of texts from the Age of Discovery through the present. The course introduces students to the methods of literary study through an examination of works in their social, historical, and philosophical contexts.
WLC 101S – INTRO TO FOREIGN LANG I: SPANISH (911600aa)
Grade: 9  Credit: 1.0  UAH Semester Hours: 3
Prerequisite(s): College Academy student

Teaches beginning listening, speaking, reading, and writing within cultural contexts. Conducted in Spanish language.

WLC 102S – INTRO TO FOREIGN LANG II: SPANISH (911601aa)
Grade: 9  Credit: 1.0  UAH Semester Hours: 3
Prerequisite(s): College Academy student

Teaches beginning listening, speaking, reading, and writing within cultural contexts. Conducted in Spanish language.

HY 103 – WORLD HISTORY TO 1500 (905002aa)
Grade: 11  Credit: 1.0  UAH Semester Hours: 3
Prerequisite(s): College Academy student

Explore the historical development of peoples and cultures from their beginnings to 1500. Trace cross-cultural interactions among societies, states, and economies of Asia, Europe, Africa, the Americas, and Oceania.

HY 104 – WORLD HISTORY SINCE 1500 (905003aa)
Grade: 12  Credit: 1.0  UAH Semester Hours: 3
Prerequisite(s): College Academy student

Explore global interdependence from the period of transoceanic exploration to the present. Trace cross-cultural interactions among societies, states, and economies of Asia, Europe, Africa, the Americas, and Oceania.

MA 171 CALCULUS A (907605aa)
Grade: 12  Credit: 1.0  UAH Semester Hours: 4
Prerequisite(s): College Academy student, MA 113, or MA 115 with a grade of C or better, or Level 3 placement.

Limits, derivates, applications of the derivative, definite, and indefinite integrals, exponential and logarithmic functions, and inverse functions.

MA 172 – CALCULUS B (907606aa)
Grade: 12  Credit: 1.0  UAH Semester Hours: 3
Prerequisite(s): College Academy student; MA 171 with a C or better

Techniques of integration, applications of the integral, polar coordinates, sequences, series, and conic sections.

MU 100 – INTRO TO MUSIC LITERATURE (908200aa)
Grade: 10  Credit: 1.0  UAH Semester Hours: 3
Prerequisite(s): College Academy student

Basic music appreciation. Exploration of ideas and issues in various types of western music through reading, listening, and discussion. (Note: This course or ARH 101 will be taught but this had not yet been determined at time of print.)
**PHL 102 INTRO TO ETHICS (905600aa)**

*Grade: 11  Credit: 1.0  UAH Semester Hours: 3*

**Prerequisite(s):** College Academy student

*Major ethical positions in both classical and modern thought. This course may include a consideration of case studies drawn from practical contexts in engineering, medicine, and other areas.*

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**PSC 101 – AMERICAN GOVERNMENT (909801aa)**

*Grade: 10  Credit: 1.0  UAH Semester Hours: 3*

**Prerequisite(s):** College Academy student

*What motivates individuals and groups to act politically? This course introduces students to political structures, decision-making, and public policy in the U.S. The role of history in the development of current institutional structures and current political developments will be considered.*

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**PY 101 – GENERAL PSYCHOLOGY I (910200aa)**

*Grade: 11  Credit: 1.0  UAH Semester Hours: 3*

**Prerequisite(s):** College Academy student

*Introduction to methods and research findings in the field. Topics include learning, memory, cognition, human development, personality theories, and abnormal behavior. (Note: This course or SOC 100 will be taught but this had not yet been determined at time of print.)*

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**SOC 100 – INTRO TO SOCIOLOGY (911400aa)**

*Grade: 11  Credit: 1.0  UAH Semester Hours: 3*

**Prerequisite(s):** College Academy student

*An introduction to the critical and scientific study of society, culture, social institutions, and social change. Illuminates the social and cultural context of our lives and is useful for exploring contemporary social issues, problems, and change in society. (Note: This course or PY 101 will be taught but this had not yet been determined at time of print.)*

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UAH Course Descriptions

[Click here for UAH course descriptions.](#)
Lee High School Magnet Program – Dance

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DANCE MAGNET I (Minor Company) (281100aa)

Grades: 9 to 12       Credit: 1.0

Prerequisite(s): Approval of instructor and enrollment in Dance Production I

DANCE MAGNET II (Minor Company) (281200aa)

Grades: 9-12       Credit: 1.0

Prerequisite(s): Dance Magnet I and enrollment in Dance Production II

These courses combine a study of dance theory, history, and corporately with physical training in proper technique. Activities are designed to provide training I life skills and to enhance students’ physical well-being. Emphasis is placed on experiencing dance as a completely interactive subject area. Physical development and self-care are integral to mastery of standards at this level. Classes are structured to increase the students’ knowledge and appreciation of the art of dance, to enhance their dance/choreography skills, and to improve their physical well-being and cooperative interaction. Ballet tests will be administered at regular intervals. All students are required to perform, dress out in proper dance attire, and attend rehearsals as scheduled. Some rehearsals will be held in addition to class time.

DANCE PRODUCTION I (281109)

Grades: 9 to 12       Credit: 1.0

Prerequisite(s): Approval of instructor and enrollment in Dance Magnet I

Dance Production I supplements beginning dance technique classes. Basic concepts of approaching work on the concert stage will be taught. Stage directions, stage areas, and the craft involved in rehearsing and performing are emphasized. Students will be assigned to performing or technical/design roles in productions. This is a lecture/laboratory course which deals with the relationship of the director to all the activities involved in the presentation of a dance concert. The production portion will be a culmination experience that applies concepts to the practicum of dance as a performing art. Supervised production and presentation of a significant choreographic project is the product of this course.
DANCE PRODUCTION II (281209)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Dance Production I and enrollment in Dance Magnet II

Dance Production II is a continuation of all skills learned in Dance Production I. This course will emphasize more advanced concepts as they apply to actual rehearsals and performances. There will be a deeper exploration of programming and production concepts and dance lighting awareness. It includes a study of techniques, styles, and vocabulary of dancing for music videos, television, and commercial work, as well as the stage. This course also covers the development of complex falls, combinations, phrasing, and dramatic emphasis. The production portion will be a culmination experience that applies concepts to the practicum of dance as a performing art. Supervised production and presentation of a significant choreographic project for the end of the year dance show is the end product of this course.

DANCE MAGNET III (Major Company) (281300ab)
Grades: 9-12  Credit: 1.0
Prerequisite(s): Dance Magnet II and enrollment in Dance Composition I

DANCE MAGNET IV (Major Company) (281300ac)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Dance Magnet III and enrollment in Dance Composition II or Dance Internship

Students will continue to work towards mastering key technical skills (correct alignment, stage presence, musicality, and focus. These skills will be expected in the dancers’ class, rehearsals, and their stage performances). These levels will have more advanced techniques in ballet, jazz, and modern. Students will also work in small collaborative groups for choreography projects.

DANCE COMPOSITION I (281109)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Dance Magnet II and enrollment in Dance Magnet III

Dance Composition I introduce dance composition and choreography. Development of basic principles and theories involved in composition are studied Emphasis is placed on movement principles, and group and structural forms. Highlights include personal invention, solo and group focus, and evaluative process in basic choreography. Students will be required to study readings and writings on choreographers and choreography. Students will also analyze dance works for form, content, design elements, and performance qualities. Dance health and safety are continually taught. All dance styles will be reviewed. Students will use their knowledge of style, form, and technique to choreograph their own dance pieces. They will work on expressing themselves through dance composition and perform their own original work at a final concert.
DANCE COMPOSITION II (281208)

Grades: 9 to 12  Credit: 1.0

Prerequisite(s): Dance Composition I and enrollment in Dance Magnet IV

Dance Composition II is a continuation of skills learned in Dance Composition I. This course will offer heightened movement experiences with greater emphasis on technical development and performance. Students will analyze dance works for form, content, design elements, and performance qualities. Development of basic principles and theories involved in composition are studied. Emphasis is placed on movement principles, and group and structural forms. Technical skills, combinations of steps into dance patterns, and exploration of composition in jazz form are emphasized. Dance health and safety are continually taught. All dance styles will be reviewed. Students will use their knowledge of style, form, and technique to choreograph their own dance pieces. They will work on expressing themselves through dance composition and perform their own original work at a final concert.

DANCE INTERNSHIP (281300aa)

Grade: 12  Credit: 1.0

Prerequisite(s): Dance Magnet III, Dance Composition I, and enrollment in Dance Magnet IV

Dance Internship is designed for students who are interested in pursuing dance as a college major and/or future career. This course provides an opportunity for students to utilize knowledge learned in dance classes by completing an internship and presenting a project that showcases their learning. Students will choose an area of interest within the dance field and work with their coordinating teacher to secure an internship experience either off or on the school campus. Students are responsible for arranging their own transportation. At the end of each semester, students will turn in a detailed, written report on their internship; present a multimedia presentation about their experience; and design a portfolio which includes internship-related documentation (signature sheets, journal entries, research, self-assessment, mentor assessments, etc.)

Electives:

APPRENTICE COMPANY (281009aa)

Grades: 9 to 12  Credit: 1.0

Prerequisite(s): none

This course will not only be an introduction into all types of dance, but will also be the building block for technique, strengthening, and flexibility. Student will learn ballet technique and vocabulary at the barre, in the center, and across the floor. Students will also learn the elements of dance: space, time, and force (energy) while learning about improvisation, choreography, and history. *Admittance through audition only.
Lee High School Magnet Program – Musical Art

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TRADITIONAL AND EMERGING ENSEMBLES: INTRODUCTION TO ORCHESTRA I (283114)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Approval of instructor and enrollment in Classical Literature

*Orchestra magnet class is a two-semester course of instruction in orchestral string instruments. The main goal of the course is to build good playing habits in a logical and sequential manner while acquiring a better understanding of their instrument and its role in various genres of music. Repertoire will focus on traditional, classical music. Other genres will be explored such as jazz, blues, and folk traditions. Fundamentals of music theory will be taught using standard notation. Students will become acquainted with the life and time of some of the important composers of classical music throughout the last 400 years.*

TRADITIONAL AND EMERGING ENSEMBLES: ORCHESTRA II (283214)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Orchestra Level I and enrollment in Music Theory – Aural Awareness

*This course builds upon the skills and techniques learned in Traditional and Emerging Ensembles: Introduction to Orchestra I.*

TRADITIONAL AND EMERGING ENSEMBLES: ORCHESTRA III (283314)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Orchestra Level II and enrollment in Instrumental Repertoire

*Students at this level should be presenting solo literature in recital. Students will work to improve technique, practice individually or in rehearsal with other musicians to maintain and improve skills. Sight-reading scores and memorization are emphasized.*

TRADITIONAL AND EMERGING ENSEMBLES: ORCHESTRA IV (283414)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Orchestra Level III and enrollment in Music Theory, AP

*Students develop the ability to read at sight music at an advanced level. They should perform for live audiences and provide accompaniment or musical background for productions as assigned. Preparation for college auditions is emphasized.*
HARMONIZING INSTRUMENTS: INTRODUCTION TO PIANO I (284102ab) SEMESTER

Grades: 9 to 12  Credit: 0.5
Prerequisite(s): none

Open to magnet and non-magnet students. This course offers a general introduction to piano performance and literature. Instruction will focus on proper hand technique, basic music theory, and proper rehearsal techniques. We will discuss the various ways in which piano literature can be learned and spend time learning a piece using each technique.

HARMONIZING INSTRUMENTS: PIANO II (284202ac)

Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Harmonizing Instruments: Introduction to Piano I and approval of instructor

Open to magnet and non-magnet students. This course offers a focused and engaging study of piano performance with an emphasis on collaboration and more one on one instruction. Instruction will be focused on accurate hand technique, exposure to more varied piano literature, correct pedal usage, sight reading, and collaboration with other performers. Instruction will be given in more advanced music theory concepts. This course will be a full year of instruction. Harmonizing Instruments: Introduction to Piano I is a required prerequisite unless prior approval is received from instructor.

TRADITIONAL AND EMERGING ENSEMBLES: INTRODUCTION TO MARCHING BAND I (283103) SEMESTER AND TRADITIONAL AND EMERGING ENSEMBLES: INTRODUCTION TO CONCERT BAND I (283101) SEMESTER

Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

First semester is a one-half credit novice level, designed for students to experience instrumental music in a marching band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will develop coordination skills associated with marching while playing instruments and learn to connect musical experiences to other cultures and disciplines within and outside of the arts. One-half credit will be earned toward the one credit LIFE PE graduation requirement. Second semester is a one-half credit course, novice level, designed for students to experience instrumental music in a concert band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will study works of famous composers of concert band literature and learn to connect musical experiences to other cultures and disciplines within and outside of the arts.
TRADITIONAL AND EMERGING ENSEMBLES: MARCHING BAND II (283203) SEMESTER AND
TRADITIONAL AND EMERGING ENSEMBLES: CONCERT BAND II (283201) SEMESTER
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Traditional and Emerging Ensembles: Introduction to Marching Band I and Traditional and Emerging Ensembles: Introduction to Concert Band I or approval of instructor

First semester is a one-half credit course, intermediate level, is designed for students to experience instrumental music in a marching band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will develop coordination skills associated with marching while playing instruments and learn to connect musical experiences to other cultures and disciplines within and outside of the arts. **One-half credit will be earned toward the one credit LIFE PE graduation requirement.** Second semester is a one-half credit course, intermediate level, designed for students to experience instrumental music in a concert band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will study works of famous composers of concert band literature and learn to connect musical experiences to other cultures and disciplines within and outside of the arts.

TRADITIONAL AND EMERGING ENSEMBLES: MARCHING BAND III (283303) SEMESTER AND
TRADITIONAL AND EMERGING ENSEMBLES: CONCERT BAND III (283301) SEMESTER
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Traditional and Emerging Ensembles: Marching Band II and Traditional and Emerging Ensembles: Concert Band II or approval of instructor

First semester is a one-half credit course, proficient level, is designed for students to experience instrumental music in a marching band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will develop coordination skills associated with marching while playing instruments and learn to connect musical experiences to other cultures and disciplines within and outside of the arts. **One-half credit will be earned toward the one credit LIFE PE graduation requirement.** Second semester is a one-half credit course, proficient level, designed for students to experience instrumental music in a concert band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will study works of famous composers of concert band literature and learn to connect musical experiences to other cultures and disciplines within and outside of the arts.
TRADITIONAL AND EMERGING ENSEMBLES: MARCHING BAND IV (283403) SEMESTER AND
TRADITIONAL AND EMERGING ENSEMBLES: CONCERT BAND IV (283401) SEMESTER
Grades: 9 to 12 Credit: 1.0
Prerequisite(s): Traditional and Emerging Ensembles: Marching Band III and Traditional and Emerging Ensembles: Concert Band III or approval of instructor

First semester is a one-half credit course, advanced level, designed for students to experience instrumental music in a marching band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will develop coordination skills associated with marching while playing instruments and learn to connect musical experiences to other cultures and disciplines within and outside of the arts. **One-half credit will be earned toward the one credit LIFE PE graduation requirement.** Second semester is a one-half credit course, accomplished level, designed for students to experience instrumental music in a concert band setting. Students will develop a characteristic tone and engage in the processes of creating, performing, and responding as related to instrumental music, while employing the concepts of timbre, rhythm, melody, harmony, form, and expression. Students will study works of famous composers of concert band literature and learn to connect musical experiences to other cultures and disciplines within and outside of the arts.
**VOCAL LAB LEVEL I (283600aa)**

*Grades:* 9 to 12  
*Credit:* 1.0  
*Prerequisite(s):* Approval of instructor and enrollment in an ensemble

*Emphasis on solo singing; English solo literature; sight-singing; performance; compare; analyze, critique; rhythmic dictation; elements of music; key signatures; vocal technique.*

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**VOCAL LAB LEVEL II (283700aa)**

*Grades:* 9 to 12  
*Credit:* 1.0  
*Prerequisite(s):* Vocal Lab Level I and enrollment in an ensemble

*Emphasis on solo singing; Italian and English solo literature; sight-singing; performance; compare; analyze, critique; melodic dictation; elements of music; key signatures; vocal technique.*

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**VOCAL LAB LEVEL III (283800aa)**

*Grades:* 9 to 12  
*Credit:* 1.0  
*Prerequisite(s):* Vocal Lab Level II and enrollment in an ensemble

*Emphasis on solo singing; German, Italian, and English solo literature; sight-singing; performance; compare; analyze, critique; melodic dictation; elements of music; key signatures; vocal technique, harmonic structure.*

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**VOCAL LAB LEVEL IV (283900aa)**

*Grades:* 9 to 12  
*Credit:* 1.0  
*Prerequisite(s):* Vocal Lab Level III and enrollment in an ensemble

*Emphasis on solo singing; French, German, Italian, and English solo literature; sight-singing; performance; compare; analyze, critique; melodic dictation; elements of music; key signatures; vocal technique, harmonic structure, part writing.*

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**Ensembles:**

**CONCERT CHOIR (283704aa)**

*Grades:* 9 to 12  
*Credit:* 1.0  
*Prerequisite(s):* Audition and approval of instructor

*Open to both magnet and non-magnet students. This Course offers the study of the choral repertoire for mixed chorus and involves learning vocal production, diction and pronunciation, expression, ensemble singing, and intonation. Performance and rehearsal techniques are learned, and a variety of styles and cultures of choral literature are studied. Membership in various sections of this choir is based on auditions. Attendance at performances of this choir is mandatory.*
TRADITIONAL AND EMERGING ENSEMBLES: WOMEN’S CHORUS II (283701)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Audition and approval of instructor

Open to both magnet and non-magnet students. This course offers the study of the choral repertoire for high women’s chorus and involves instruction in learning proper vocal production and posture, diction, and pronunciation.

TRADITIONAL AND EMERGING ENSEMBLES: MEN’S CHORUS II (283702)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none; Vocal Performance magnet students must be enrolled in Vocal Lab Level I or higher

Open to both magnet and non-magnet students. Entry level ensemble for male students, this course features music of different periods and styles for the male voice.

TRADITIONAL AND EMERGING ENSEMBLES: MIXED CHORUS II (283200)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Approval of instructor; Vocal Performance magnet students must be enrolled in Vocal Lab Level II or higher

This course is an auditioned performing vocal ensemble. Students must participate in required performances, sometimes after school hours. Open to both men and women, students’ learning experiences will be based on basic music theory, music sight reading, and a variety of music literature from various stylistic periods and genres.

TRADITIONAL AND EMERGING ENSEMBLES: MIXED CHORUS III (283300)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Approval of instructor; Vocal Performance magnet students must be enrolled in Vocal Lab Level III or higher

Open to both magnet and non-magnet students. Advanced level mixed ensemble, second year.

TRADITIONAL AND EMERGING ENSEMBLES: MIXED CHORUS IV (283800)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Approval of instructor; Vocal Performance magnet students must be enrolled in Vocal Lab Level IV or higher

Open to both magnet and non-magnet students. Advanced level mixed ensemble, third year.

TRADITIONAL AND EMERGING ENSEMBLES: SHOW CHOIR I (283605)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Audition and approval of instructor

This group performs a variety of music and dance styles. Members sing while performing dance routines. This show choir represents the school at Show Choir Festivals and at performances within the community. Although the membership’s musical requirements are high, the foremost qualification is a strong desire to contribute extra time and effort to developing performance skills. Performance demands are great. There are many after school rehearsals and performances. Membership is by audition only, and participation in a choral ensemble is considered a benefit to membership.
TRADITIONAL AND EMERGING ENSEMBLES: SHOW CHOIR II (283705)

Grades: 9 to 12       Credit: 1.0
Prerequisite(s): Audition and approval of instructor

This group performs a variety of music and dance styles. Members sing while performing dance routines. This show choir represents the school at Show Choir Festivals and at performances within the community. Although the membership’s musical requirements are high, the foremost qualification is a strong desire to contribute extra time and effort to developing performance skills. Performance demands are great. There are many after school rehearsals and performances. Membership is by audition only, and participation in a choral ensemble is considered a benefit to membership. Require one semester of piano and one semester of theory for Musical Arts magnet students.

TRADITIONAL AND EMERGING ENSEMBLES: SHOW CHOIR III (283805)

Grades: 9 to 12       Credit: 1.0
Prerequisite(s): Audition and approval of instructor

This is a one credit course, proficient level, designed for students to increase artistry by exploring popular music from a wide variety of cultures and time periods through academic study and performance. By creating, performing, and responding, students will continue to develop vocal skills, choreography and movement and sight-reading techniques. Allowing musical experiences to other cultures and disciplines within and outside of the arts, music history and theory are embedded so students may connect these popular vocal style experiences to historical relevance, contemporary issue, and self-reflection.

TRADITIONAL AND EMERGING ENSEMBLES: SHOW CHOIR IV (283905)

Grades: 9 to 12       Credit: 1.0
Prerequisite(s): Audition and approval of instructor

This is a one credit course, accomplished level, designed for students with multiple years of high school study to explore popular music from a wide variety of cultures and time periods through academic study and performance. By creating, performing, and responding, students will continue to develop vocal skills, choreography and movement and sight-reading techniques. This level is designed to extend students’ choral skills and artistry and to provide a deeper understanding and appreciation of the study of music. Allowing musical experiences to other cultures and disciplines within and outside of the arts, music history and theory are embedded so students may connect these popular vocal style experiences to historical relevance, contemporary issue, and self-reflection.

Elective:

MUSIC THEORY, AP (280024aa)

Grades: 9 to 12       Credit: 1.0
Prerequisite(s): Approval of instructor

A college-level advanced course approved by the College Board Advanced Placement (AP) Program for music; musical structure; analysis of composition; notational systems; arrangement for instruments and/or voices; improvisational accompaniment on piano or other instruments.
Level 1
Creative Writing I (200033) AND Composition, Expository (200032)

Level 2
Creative Writing II (200033aa) AND Essential Writing (200036ae)

Level 3
Creative Writing III (200033ac) AND Writing Genres (200036af)

Level 4
Creative Writing IV (200033ad) AND Advanced Writing (200036ag)

CREATIVE WRITING I (200033)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Approval of instructor

This course introduces young writers to the basic elements of each genre, focusing on poetry and fiction. Participants submit original work for critique by instructor and fellow students.

COMPOSITION, EXPOSITORY (200032)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Approval of instructor and enrollment in Creative Writing I

Entry level of the Creative Writing Magnet, stressing basic composition structure, models; skill improvement.

CREATIVE WRITING II (200033aa)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Creative Writing I

This course is designed to build on skills learned in Creative Writing I. Students have opportunities to write creative, original works of prose, poetry, and drama. Students engage in various writing activities including mimicking styles, developing pieces based on visual and audio prompts, writing in groups, and writing on self-selected themes. Students are expected to take constructive criticism for the purpose of improvement.

ESSENTIAL WRITING (200036ae)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Creative Writing I and enrollment in Creative Writing II

This course focuses on developing essential writing skills at the sentence and paragraph levels. It emphasizes fluency in the writing process through use of invention strategies, drafting, revising, and editing in order to produce organized and coherent writing.

CREATIVE WRITING III (200033ac)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Creative Writing II

Continuing to build on creativity and writing skills, students will learn to critically evaluate their own work and the works of others. Students will fine tune their skills in writing and focus on a specific area of interest, such as fiction writing, nonfiction writing, poetry, or playwriting.
WRITING GENRES (200036af)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Creative Writing II and enrollment in Creative Writing III

This course focuses on developing essential writing skills at the sentence and paragraph levels. It emphasizes fluency in the writing process through use of invention strategies, drafting, revising, and editing in order to produce organized and coherent writing.

CREATIVE WRITING IV (200033ad)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Creative Writing III

Expanding on the concepts taught in previous courses, students will submit work for various competitions and develop works for publication. Students will develop a portfolio of writing samples and published articles for college admissions and internship interviews.

ADVANCED WRITING (200036ag)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Creative Writing III and enrollment in Creative Writing IV

This course is for the senior Creative Writing student with a strong commitment to developing their own creative work and who is continuing to develop and maintain a personal creative writing process. Students will focus on the basics of writing creatively, storytelling, imagery, rhythm, metaphor, character building and preparation for publication and continuation in the college setting.
Lee High School Magnet Program – Media Arts

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<td>Media Arts I (282100) AND Live Production I (282105aa)</td>
<td>Media Arts II (282200) AND Live Production II (282205aa)</td>
<td>Media Arts III (282300) AND Cinematography I (282111aa)</td>
<td>Media Arts IV (282400) AND Cinematography II (282219aa)</td>
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**MEDIA ARTS I (282100)**

**MEDIA ARTS II (282200)**

**MEDIA ARTS III (282300)**

**MEDIA ARTS IV (282400)**

**Grades:** 9 to 12  
**Credit:** 1.0

**Prerequisite(s):**
- MEDIA ARTS I (282100) - none
- MEDIA ARTS II (282200) – Media Arts I
- MEDIA ARTS III (282300) – Media Arts II
- MEDIA ARTS IV (282400) – Media Arts III

*Media Arts I-IV provides an overview and introduction to the magnet program, facilities, equipment, and techniques. This course provides hands on experience mastering the fundamentals of filming and editing for a variety of mediums and in various styles. After completion, students will have a working knowledge of DSLR cameras, HD news cameras, lighting, audio, and the Adobe Creative Cloud software suite. Filming styles include but are not limited to video broadcast journalist, vlogging, social media content, training, product reviews, and narrative filmmaking. All magnet students will be required to participate in extracurricular filming and related activities each semester. Class is restricted to magnet students. Students will be placed according to current level of skill and experience.*

**CINEMATOGRAPHY I (282111aa)**

**Grades:** 9 to 12  
**Credit:** 1.0

**Prerequisite(s):** Live Production II or approval of instructor

*Cinematography provides the most advanced experience with narrative filmmaking and cinematic styles. Emphasis will be placed on filmmaking styles and techniques throughout the history of film. Students will develop a sophisticated aesthetic eye and refined editing sensibilities. Students will be expected to complete a series of short films and one major narrative film work using an original script. All magnet students will be required to participate in extracurricular filming and related activities each semester. Class is restricted to magnet students. Students will be placed according to current level of skill and experience. (NOTE: Enrollment is limited.)*
CINEMATOGRAPHY II (282219aa)
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): Cinematography I or approval of instructor

Cinematography provides the most advanced experience with narrative filmmaking and cinematic styles. Emphasis will be placed on filmmaking styles and techniques throughout the history of film. Students will develop a sophisticated aesthetic eye and refined editing sensibilities. Students will be expected to complete a series of short films and one major narrative film work using an original script. All magnet students will be required to participate in extracurricular filming and related activities each semester. Class is restricted to magnet students. Students will be placed according to current level of skill and experience. (NOTE: Enrollment is limited.)

LIVE PRODUCTION I (282105aa)
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): none

Live production focuses on the intersection of Media Arts and Live Performance. As a collaborative course, students will assist with productions and events alongside Technical Theatre department. Students will develop skills in live video cueing, live recording, and broadcast streaming. This course will also emphasize video mapping, the cutting-edge integration of video with live theatre and performance. All magnet students will be required to participate in extracurricular filming and related activities each semester. Class is restricted to Media Arts and Tech Theatre magnet students. (NOTE: Enrollment is limited.)

LIVE PRODUCTION II (282205aa)
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): Live Production I or approval of instructor

Live production focuses on the intersection of Media Arts and Live Performance. As a collaborative course, students will assist with productions and events alongside Technical Theatre department. Students will develop skills in live video cueing, live recording, and broadcast streaming. This course will also emphasize video mapping, the cutting-edge integration of video with live theatre and performance. All magnet students will be required to participate in extracurricular filming and related activities each semester. Class is restricted to Media Arts and Tech Theatre magnet students. (NOTE: Enrollment is limited.)

FILMMAKING (282109aa)
Grades: 9 to 12  
Credit: 1.0  
Prerequisite(s): Live Production I or approval of instructor

This collaborative course will focus narrative, story-driven filmmaking and editing with a focus on acting and performance in front of the camera. This course integrates fundamental acting and storytelling sensibilities with technical skills in order to produce original creative content. Students will learn selective technical skills as well as valuable public speaking and presentation methodology. Students will understand and practice the distinct tone and style differences between live performance and performance for the camera. All magnet students will be required to participate in extracurricular filming and related activities each semester. Class is restricted to Media Arts and Theatre magnet students. (formerly Acting for the Camera) (NOTE: Enrollment is limited.)
Non-Magnet Electives:

INTRODUCTION TO MEDIA ARTS I (282100) SEMESTER
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): none

This course provides an overview of the Media Arts discipline. Students will develop skills with basic camera techniques and editing. As a broad media arts course, this class will provide exposure and experience with scriptwriting, podcasting, theatre and live performance, video broadcast journalist, scriptwriting and an introduction to the Adobe Creative Cloud software suite including Photoshop.

SOCIAL MEDIA (282102aa) SEMESTER
Grades: 9 to 12  Credit: 0.5
Prerequisite(s): Intro to Media Arts, Filmmaking, or approval of instructor

Social Media Content focused on the production of short form video products seen on various social media platforms. These include vlogs, product reviews, tutorials, testimonials, reaction video, film, and video game commentary as well as some scripted narrative. This course also provides experience in citizen journalism, an important vehicle for social change and discourse in the modern era. This course has a prerequisite of Introduction to Media Arts or an equivalent class with instructor approval.
Lee High School Magnet Program – Photography

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**MAGNET PHOTOGRAPHY I (286102aa)**

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Approval of instructor and enrollment in Introduction to Photography

This course is designed to provide extra studio time to magnet students and to be able to explore additional concepts or delve deeper into contents. It is required that this course be taken in conjunction with Introduction to Photography (286102).  

**INTRODUCTION TO PHOTOGRAPHY (286120)**

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Approval of instructor and enrollment in Magnet Photography I

Studio course that explores the history and invention of photography through project based assignments. Concepts include developing technical skills to create and evaluate fine art photography. It is required that this course be taken in conjunction with Magnet Photography I (286102aa).  

**MAGNET PHOTOGRAPHY II (286202ab)**

**Grades:** 10 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Photography I and enrollment in Advanced B&W and Alternative Processes

This course is designed to provide extra studio time to magnet students and to be able to explore additional concepts or delve deeper into contents. It is required that this course be taken in conjunction with Advanced B&W and Alternative Processes (286202aa).  

**ADVANCED B&W AND ALTERNATIVE PROCESSES (286202aa)**

**Grades:** 10 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Introduction to Photography and enrollment in Magnet Photography II

Studio course with emphasis on photographic theory and darkroom techniques. Alternative processes such as color printing or liquid emulsions may be explored. It is required that this course be taken in conjunction with Magnet Photography II (286202ab).
MAGNET PHOTOGRAPHY III (286302aa)
Grades: 11 to 12 Credit: 1.0
Prerequisite(s): Magnet Photography II and enrollment in Digital and Studio Photography

This course is designed to provide extra studio time to magnet students and to be able to explore additional concepts or delve deeper into contents. It is required that this course be taken in conjunction Digital and Studio Photography (286303aa).

DIGITAL AND STUDIO PHOTOGRAPHY (286303aa)
Grades: 11 to 12 Credit: 1.0
Prerequisite(s): need prerequisites here

Studio course teaching concepts of studio lighting and digital cameras; using Photoshop and Lightroom editing software; creating and manipulating digital prints. It is required that this course be taken in conjunction with Magnet Photography III (286302aa).

MAGNET PHOTOGRAPHY IV (286402aa)
Grade: 12 Credit: 1.0
Prerequisite(s): Photography III Magnet and enrollment in Photography Portfolio or Studio Art 2-D Design, AP

This course is designed to provide extra studio time to magnet students and to be able to explore additional concepts or delve deeper into contents. It is required that this course be taken in conjunction Photography Portfolio (283402ac) or Studio Art 2-D Design, AP (280103).

PHOTOGRAPHY PORTFOLIO (286402ac)
Grades: 12 Credit: 1.0
Prerequisite(s): Magnet Photography III and enrollment in Magnet Photography IV

This course provides students with the opportunity to create projects utilizing traditional and electronic portfolio presentations. This course prepares students for postsecondary education and/or entry-level positions in the advertising design industry.

STUDIO ART 2-D DESIGN, AP (280103)
Grades: 11 to 12 Credit: 1.0
Prerequisite(s): Visual Arts, Level I, four semesters of upper-level art classes, and permission of Art faculty
Fee(s): $30 per semester

Studio Art 2-D Design, AP is for students who are seriously interested in the practice of art. Those who plan to continue their education in the visual arts at an art institute, college, or university may wish to take these courses. It is recognized that the students will need to work independently outside the classroom and beyond scheduled periods. Additional costs will occur for this course. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)
### Lee High School Magnet Program – Technical Theatre

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<td>Technical Theatre Production I (440004) AND Theatre Practicum I (440055)</td>
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<td>Technical Theatre Production III (285302) AND Must also be enrolled in one class of production specialty</td>
<td>Technical Theatre Production IV (285302aa) AND Must also be enrolled in one class of production specialty</td>
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### TECHNICAL THEATRE PRODUCTION I (440004)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Approval of instructor and enrollment in Theatre Practicum I

*A basic course introducing the four primary fields of theatrical design - scenery, stage management, lighting, and sound. Students will not be expected to have strong technical skills at this level. Rather, they will need to be open to the exploration of ideas and how ideas are formed in a theatrical production. Instruction in the skills required for the operation of associated tools and equipment and instruction in the skills required for the operation of lighting and sound equipment will be taught. Students are required to complete a main stage running crew assignment as a component of this course.*

### THEATRE PRACTICUM I (440055)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Approval of instructor and enrollment in Theatre Production I

*Students will complete practical theatre assignments on main stage productions in the areas of scenery, lighting, management, or set design and construction.*

### TECHNICAL THEATRE PRODUCTION II (285202)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Approval of instructor, Theatre Production I, and enrollment in Theatre Practicum II

*This course is the second term of sequence adds elements of stage lighting, scene painting, and theatre sound, the planning and building of sets and stage properties, and the production of organization skills needed to mount theatrical productions. Required participation in productions presented as assigned.*

### THEATRE PRACTICUM II (285200ab)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Theatre Practicum I and enrollment in Theatre Production II

*Students will continue to work in all areas of theatre production. They will provide technical support for all productions or performances held in either the Black Box or the Mainstage Theatres. Students in this course will begin to choose the areas in which they wish to specialize in their junior and senior years.*

### TECHNICAL THEATRE PRODUCTION III (285302)

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Approval of instructor, Theatre Production II, and enrollment in one production specialty course

*Students begin to find area of concentration in theatre production. Required participation in productions presented as assigned.*
TECHNICAL THEATRE PRODUCTION IV (285302aa)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Approval of instructor, Theatre Production III, and enrollment in one production specialty course

Students specialize in area of concentration. Required participation in productions as assigned. Students receive overview of production process.

THEATRE, DESIGNING/TECHNICAL (285202aa)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Approval of instructor and enrollment in Theatre Production III or IV

Designed to acquaint the student with the art and practice of taking a scenic design and creating working drawings for construction, perspective drawing, solving mechanical challenges of the script, rendering and modeling. The student studies industry standard construction methods and OSHA standards. We will also use Vectorworks Spotlight for computer drafting. Assignments include theoretical scenic designs from selected plays as well as heading up build crews for productions.

SCENIC DESIGN AND CONSTRUCTION (285307)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Approval of instructor and enrollment in Theatre Production III or IV

Designed to acquaint the student with the art and practice of designing scenery for the theatre, the study includes design concepts, script analysis, color theory, design conceptualization, and theatre architecture, scenic painting, perspective drawing, rendering and modeling. We will also use Vectorworks Spotlight for computer drafting. Assignments include theoretical scenic designs from selected plays as well as heading up build crews for productions.

STAGE LIGHTING (285306ab)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Approval of instructor and enrollment in Theatre Production III or IV

Designed to acquaint the student with the art and practice of lighting design for the theatre, the course will include lighting equipment and control, script analysis, design methodologies, additive and subtractive color theory, lighting for dance, musicals, and alternate theatre architectures. Assignments include theoretical lighting designs.

SOUND DESIGN (285306aa)
Grades: 9 to 12  Credit: 1.0
Prerequisite(s): Approval of instructor and enrollment in Theatre Production III or IV

This course is designed to acquaint the student with the art and practice of sound design for the theatre. The course will include a study of sound equipment and control, script analysis and preparation, design methodologies, basic acoustics, and the processing and completion of sound effects. The course will include both in-class discussions and demonstrations as well as practical exercises. Assignments will include theoretical as well as practical sound designs.
STAGE MANAGEMENT (285308ad)

Grades: 9 to 12  Credit: 1.0

Prerequisite(s): Approval of instructor and enrollment in Theatre Production III or IV

Students in stage management are immersed in a comprehensive curriculum of study and practical experiences which encompass every type of theatrical production, including dramas, musicals, and dance. Students also explore and develop their leadership abilities, communication skills, problem-solving techniques, and an appreciation for the role of the director and choreographer. Stage management students begin to assume production assignments as assistant stage managers, and eventually production stage managers. Students master all the mechanics necessary for a successful career as a professional stage manager, including scheduling, creating effective paperwork and cue sheets, running rehearsals both in the studio and on the stage.

SENIOR CAREER PATHWAY PROJECT – ARTS, A/V TECHNOLOGY, AND COMMUNICATIONS (440054)

Grades: 9 to 12  Credit: 1.0

Prerequisite(s): Approval of instructor

This course is designed for senior students to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project in video production and communication.

Non-Magnet Electives:

THEATER PRODUCTION NON-MAGNET (285102aa) SEMESTER

Grades: 9 to 12  Credit: 0.5

Prerequisite(s): none

A basic course introducing the primary fields of technical theatre - scenery, stage management, makeup, costuming, lighting, and sound. Students will not be expected to have strong technical skills at this level. Rather, they will need to be open to the exploration of ideas and how ideas are formed in a theatrical production. Instruction in the skills required for the operation of associated tools and equipment and instruction in the skills required for the operation of lighting and sound equipment will be taught.
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**THEATRE MAGNET I (285100aa)**  
**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Approval of instructor  

_Students focus on the development and use of basic acting skills: imagination, concentration, observation, collaboration, and physical and vocal expressiveness. It introduces specialty skills such as audition preparation, character analysis, and the use of the Body, Mind, and Voice as tools of the actor. Students pursue all theatrical areas of focus in both class and production. Students are expected to audition and perform in extra-curricular productions, competitions, and events._

**THEATRE MAGNET II (285200aa)**  
**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Theatre Magnet I or approval of instructor  

_Students experience more in-depth discoveries in the fundamentals of theatre performance including: character development, script analysis, style and collaboration, characterization, and interpretation. Students are expected to weigh their strengths and weaknesses through self-evaluation, analyze feedback and criticism for validity and usefulness, and continue to foster self-motivated growth as a performer. In addition, students evaluate the legal and ethical implications of performing another’s work, engage in historical perspectives from both America and in the world, and thoroughly examine concepts of theatre throughout these historic lenses. Students are expected to audition and perform in extra-curricular productions, competitions, and events._

**THEATRE MAGNET III (285300aa)**  
**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Theatre Magnet II or approval of instructor  

_Students continually build upon background knowledge and skills through rigorous study of theatre encompassing the three strands of producing, responding, and understanding. Students are expected to approach theatre as a substantive academic discipline. This fosters a comprehensive look at theatre, including how it is developed, how it functions in society, how it can be used as a force for change, and how students can attain mastery in these separate prisms of work. Students write scripts, direct, rehearse collaboratively and perform in scenes and plays while investigating theatrical aesthetic and criticism. Furthermore, students continue to explore cultural perspectives of theatre history, and its direct effect on the human condition throughout time. Students are expected to audition and perform in extra-curricular productions, competitions, and events._
THEATRE MAGNET IV (285300ab)
Grades: 9 to 12    Credit: 1.0
Prerequisite(s): Theatre Magnet III or approval of instructor

Students continually build upon background knowledge and skills through rigorous study of theatre encompassing the three strands of producing, responding, and understanding. Students are expected to approach theatre as a substantive academic discipline. This fosters a comprehensive look at theatre, including how it is developed, how it functions in society, how it can be used as a force for change, and how students can attain mastery in these separate prisms of work. Students write scripts, direct, rehearse collaboratively and perform in scenes and plays while investigating theatrical aesthetic and criticism. Furthermore, students continue to explore cultural perspectives of theatre history, and its direct effect on the human condition throughout time. Students are expected to audition and perform in extra-curricular productions, competitions, and events.

MUSICAL THEATER I – IV *Admittance through additional audition only
Students use research based methodology in order to perform regularly with a musical theatre ensemble. Students will engage in the study of musical theatre history, styles, and choreography. This course is performance oriented and comes with a high expectation of extra-curricular time commitment and energy. The ensemble is regularly booked to perform for city-wide events, and attendance to these are critical towards the academic success of its participants. Students will receive specialty training in singing, dancing, and acting. Students are expected to audition and perform in extra-curricular productions, competitions, and events.

INTRODUCTION TO MUSICAL THEATRE I (285101)
Grades: 9 to 12    Credit: 1.0
Prerequisite: none

MUSICAL THEATRE II (285201)
Grades: 9 to 12    Credit: 1.0
Prerequisite: Introduction to Musical Theater I and audition

MUSICAL THEATRE III (285301)
Grades: 9 to 12    Credit: 1.0
Prerequisite: Musical Theater II and audition

MUSICAL THEATRE IV (285301aa)
Grades: 9 to 12    Credit: 1.0
Prerequisite: Musical Theater III and audition

ACTING FOR FILM I – IV
Students use research based methodology in order to create viable digital content. Students will collaborate with Media Arts designers, and learn the fundamentals of film making, cinematography, and new media. Students are expected to produce high-quality work that will be submitted to ETV and will refine acting fundamentals learned in the scope of the magnet courses. Students are expected to audition and perform in extra-curricular productions, competitions, and events.
ACTING FOR FILM I (285104aa)
Grades: 9 to 12  Credit: 1.0
Prerequisite: Approval of instructor

ACTING FOR FILM II (285204ab)
Grades: 9 to 12  Credit: 1.0
Prerequisite: Acting for Film I or approval of instructor

ACTING FOR FILM III (285304aa)
Grades: 9 to 12  Credit: 1.0
Prerequisite: Acting for Film II or approval of instructor

ACTING FOR FILM IV (285304ab)
Grades: 9 to 12  Credit: 1.0
Prerequisite: Acting for Film III or approval of instructor

DIRECTING I (285108aa)
Grades: 9 to 12  Credit: 1.0
Prerequisite: Approval of instructor

DIRECTING II (285208aa)
Grades: 9 to 12  Credit: 1.0
Prerequisite: Directing I or approval of instructor

DIRECTING III (285308aa)
Grades: 9 to 12  Credit: 1.0
Prerequisite: Directing II or approval of instructor

DIRECTING IV (285408aa)
Grades: 9 to 12  Credit: 1.0
Prerequisite: Directing III or approval of instructor

SENIOR PATHWAYS FOR THE THEATER PROFESSIONAL (285308ac)
Grade: 12  Credit: 1.0
Prerequisite(s):  need prerequisite here

Senior students who are looking to specialize in Theatre in college or professional industries are given an opportunity to create and organize a practicum based class that will culminate in a final portfolio project. Students will identify a course of study with the instructor, and the specialty outline will be approved by a Fine Arts Panel. Students are expected to audition and perform in extra-curricular productions, competitions, and events.
Non-Magnet Theatre Course:

INTRODUCTION TO THEATER I (285100)

Grades:  9 to 12       Credit:  1.0

Prerequisite(s):  none

Students are given an opportunity to explore the fundamentals of Theatre including: theatre history, theatre performance, theatrical design, management and production, and audience etiquette. This is a performance based class; enrolled students are expected to perform coursework weekly. Students will receive feedback and criticism, will learn to analyze it for validity, and apply it in future coursework to show growth and improvement. Students are expected to attend one (1) live performance per nine weeks.
VISUAL ARTS MAGNET I (286100aa)
Grades: 9 to 12   Credit: 1.0
Prerequisite(s): Approval of instructor and enrollment in one credit hour of a studio art class.

This course is an entry level magnet class in which students will gain a working knowledge of the elements and principles of art and design along with the basic of technique, craftsmanship, and art vocabulary: the creation and production of two and three-dimensional artworks; art history and the use of art to communicate ideas.

VISUAL ARTS MAGNET II (286200aa)
Grades: 9 to 12   Credit: 1.0
Prerequisite(s): Approval of instructor, Visual Arts Magnet I and enrollment in one credit hour of a studio art class

This course is designed to guide students deeper into the creative phase; to understand and to apply visual relationships and problem-solving using a wider variety of media and techniques; elements and principles of art and design; aesthetics; criticism; art history; evaluation and interdisciplinary connections.

VISUAL ARTS MAGNET III (286300aa)
Grades: 9 to 12   Credit: 1.0
Prerequisite(s): Approval of instructor, Visual Arts Magnet II, and enrollment in one credit hour of a studio art class

This course is a continuation of Visual Arts Magnet II. Students focus on creating works of art using a variety of media and techniques. This course has an emphasis on art production to help students develop a personal portfolio. Through the creation of unique artwork, students learn to creatively problem solve. Art production is supported with a thorough investigation of art history and proactive in art criticism. Continued application and student of the elements of art and principles of design.

VISUAL ARTS MAGNET IV (286400aa)
Grades: 9 to 12   Credit: 1.0
Prerequisite(s): Approval of instructor, Visual Arts Magnet III, and enrollment in one credit hour of a studio art class.

This course is a continuation of Magnet III. Students focus on creating works of advanced art using a variety of media and techniques. This course has an emphasis on art production to help students develop a personal portfolio. Students will create a thematically related body of work throughout the course. Through the creation of unique artwork, students learn to creatively problem solve. Art production is supported with a thorough investigation of art history and practice in art criticism. Continued application and a study of the elements of art and the principles of design. Students will prepare and participate in at least one public exhibition.
Studio Art Classes:

MAGNET DRAWING I (286210ab)
Grades: 9 to 12         Credit: 1.0
Prerequisite(s): Enrollment in Visual Arts Magnet I

This course covers the fundamentals of drawing: basic technique and concepts, composition, the visual element, the principles of design, and the basic techniques and concepts of drawing and will be covered. The end goals are to increase skill and develop a working knowledge of the basics of drawing.

MAGNET DRAWING II (286210aa)
Grades: 9 to 12         Credit: 1.0
Prerequisite(s): Magnet Drawing II

This studio course offers continued exploration and skill-building in rendering techniques and practices.

MAGNET PAINTING I (286208ab)
Grades: 9 to 12         Credit: 1.0
Prerequisite(s): Enrollment in Visual Arts Magnet I

This studio art course investigates a variety of painting techniques with an emphasis on individual creativity and painterly craftsmanship. Introductory class that focuses on art production, art criticism, art history and development of personal aesthetic. Media for this course may include, but are not limited to, tempera, watercolor, acrylic, oil pastel and pastel.

MAGNET PAINTING II (286208aa)
Grades: 9 to 12         Credit: 1.0
Prerequisite(s): Magnet Painting I

This advanced studio art course covers an in-depth study and application of painting techniques with an emphasis on individual creativity and painterly craftsmanship. This course is a continuation of Painting I with a focus on art production, art criticism, art history and development of personal aesthetic. Media for this course may include, but are not limited to tempera, watercolor, acrylic, oil pastel and pastel.

MAGNET GRAPHIC DESIGN I (286206aa)
Grades: 9 to 12         Credit: 1.0
Prerequisite(s): Enrollment in Visual Arts Magnet I

This studio course is a continuation of Visual Arts Magnet III and is designed to introduce students to techniques used in advertising art and design for reproduction. This course will deal with the fundamentals for generating two-dimensional design as a specific visual communications tool. The course may include but is not limited to layout, typography, advertising and logo design, image manipulation, and production.

MAGNET GRAPHIC DESIGN II (286306aa)
Grades: 9 to 12         Credit: 1.0
Prerequisite(s): Magnet Graphic Design I

This advanced studio course offers in-depth study and skill development in the area of graphic design.
MAGNET CERAMICS I (286207ab)
Grades: 9 to 12    Credit: 1.0
Prerequisite(s): Enrollment in Visual Arts Magnet I

This studio course investigates a variety of three-dimensional design techniques. Emphasis is on basic techniques and craftsmanship. Units of study may include the art and craft of clay building, basic representational and non-representational sculpture, pinch, coil, and slab construction.

MAGNET CERAMICS II (286207aa)
Grades: 9 to 12    Credit: 1.0
Prerequisite(s): Magnet Ceramics I

This studio course offers in-depth work in pottery and sculpture using a variety of design techniques. Wheel throwing is included in this course. Emphasis is on honing skill and developing creativity.

ART HISTORY, AP (280101)
Grades: 11 and 12    Credit: 1.0
Prerequisite(s): Approval of instructor or Visual Arts Magnet I, II, and III
Fee(s): $30 per semester

This course is both for the artistically inclined and those wishing to learn more about art history while earning college credit. Class involves critical thinking and helps to develop an understanding and knowledge of diverse historical and cultural contexts of architecture, sculpture, painting, and other media. Art history emphasizes understanding how and why works of art in function in context, considering such issues as patronage, gender and the functions and effects of works of art. Students must pass an AP Art History Exam to earn college credit.

STUDIO ART: DRAWING, AP (280102)
STUDIO ART: 2-D DESIGN, AP (280103)
STUDIO ART: 3-D DESIGN, AP (280104)
Grades: 11 and 12    Credit: 1.0
Prerequisite(s): Approval of instructor or Visual Arts Magnet I, II, and III
Fee(s): $30 per semester

These courses are designed to prepare and guide students through the art making process of creating an AP Studio Art portfolio. This course is intended 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. Students will address the three components in their portfolios: quality, concentration, and breadth. The AP Studio Art Program consist of three portfolios: Drawing, 2-D Design, and 3-D Design -- corresponding to the most common college foundation courses. AP Studio Art sets a national standard for performance in the visual arts that contributes to the significant role that the arts play in academic environments. 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.
MAGNET PORTFOLIO ARTS: INDEPENDENT STUDY (286402ab)

Grade: 12    Credit: 1.0

Prerequisite(s): Approval of instructor or Visual Arts Magnet I, II, and III

This course is for advanced students who wish to design, and complete individual study projects geared to their interests, aptitudes, and needs. Students will develop a thematically related body of work, develop an artist statement, and create a physical and digital portfolio. Plans must be approved by supervising teacher.
Huntsville City Schools’ Only Full Magnet High School Specializing in Advanced Studies in Science, Technology, Engineering, and Mathematics.

New Century Technology High School is unique in its ability to offer students advanced level core classes coordinated with specialized courses in highly technical fields. Each student accepted into New Century chooses a strand for concentrated studies. These strands include Biomedical Science, Engineering, and Computer Science. Students complete two courses in the selected strand each year to graduate as a strand completer with extensive knowledge and experience in their chosen field. Students also can connect with industry leaders through mentoring, internships, and job shadowing opportunities. All New Century students are expected to maintain an 80 average in all core classes and at least two strand classes each year.
Students who select Biomedical Science may choose to focus on courses that progress toward a career as a Health Care Professional or toward research and biotechnology careers.

<table>
<thead>
<tr>
<th>9th Grade</th>
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<th>Certification Opportunities</th>
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</thead>
<tbody>
<tr>
<td>Principles of Biomedical Science PLTW (490042)</td>
<td>Computer Science Principles, AP (520018)</td>
<td>Neuroscience (220045af)</td>
<td>Health Science Internship (490013)</td>
<td>• Certified Patient Care Technician (CPCT)</td>
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<tr>
<td>Introduction to Healthcare and Research (802209ah)</td>
<td>Genetics (220045aa)</td>
<td>Advanced Forensic Science (220045ac)</td>
<td>Research and Design in Biology (220043)</td>
<td>• Certified Nursing Assistant (CNA)</td>
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<tr>
<td>Foundations of Health Science (490007)</td>
<td>Public Health (220045ai)</td>
<td>Biotechnology &amp; Bioinformatics (220045ak)</td>
<td>Biotechnology Internship (802209ca)</td>
<td>• Certified EKG Technician (CET)</td>
</tr>
<tr>
<td>Computer Science Fundamentals (260003ag)</td>
<td>Human Anatomy &amp; Physiology (220026)</td>
<td>Diagnostic Services (490017)</td>
<td>Pharmacy Technology (802209cg)</td>
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<tr>
<td></td>
<td>Therapeutic Services (490023)</td>
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</tbody>
</table>

**PRINCIPLES OF BIOMEDICAL SCIENCE PLTW (490042)**

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** none  
**Fee(s):** $60 course fee, $30 HOSA dues (dues are paid once a year, first semester - no waiver) $90 total

*This course involves the study of human medicine, research processes, and an introduction to bioinformatics. Students investigate the human body systems and various health conditions. Students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person’s life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems.*

**INTRODUCTION TO HEALTHCARE AND RESEARCH (802209ah)**

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** none

*This course is intended to teach students about career pathways in both Health and Biotechnology research. Students will be introduced to the various causes and treat human disease, such as how infections are transmitted and treated, how cancer and genetic diseases develop, how the field of genomics is transforming genetic disease treatment, how nutrition and environment impact disease, and how complex diseases like heart disease, diabetes, and Alzheimer’s develop. Medical terminology, healthcare communication, and laboratory technology skills are integrated into this course.*
FOUNDATIONS OF HEALTH SCIENCE (490007)
Grade: 10 Credit: 1.0
Prerequisite(s): Principles of Biomedical Science

Foundations of Health Science can be substituted for the required health credit for graduation.
A one-credit foundational course that introduces students to integrated academics, employability and career
development skills, legal and ethical issues, communications, safety, and life skills. This course is a prerequisite to all
courses in the Health Science cluster.

COMPUTER SCIENCE FUNDAMENTALS (260003ag)
Grades: 9 to 12 Credit: 1.0
CO-requisite(s): Must concurrently be enrolled in Algebra I or higher-level math

This course is an introduction to computer programming concepts and computational thinking. This course covers
program design (using tools such as flowcharting and pseudo-code) abstraction, and algorithm development. Students
will be taught to write programs using both “Drag-and-Drop (Snap!) and textural (Python) programming languages. A
survey of careers in the field of computer science will also be examined.

COMPUTER SCIENCE PRINCIPLES, AP (520018)
Grades: 10 to 12 Credit: 1.0
Prerequisite(s): Algebra I

This course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the
Internet, cybersecurity concerns, and computing impacts. Computer Science Principles, AP will give students the
opportunity to use technology to address real-world problems and build relevant solutions. Together, these aspects of the
course make up a rigorous and rich curriculum that aims to broaden participation in computer science. This course is
weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra
cost for AP exam.) Students may receive math credit for this course if they have successfully passed Algebra II with
Trigonometry.

GENETICS (220044aa)
Grades: 9 to 12 Credit: 1.0
Prerequisite(s): none

This course will introduce students to discoveries and applications in modern genetics – from the discovery of a gene and
its organization in the cell to the discovery of the human genome sequence and the future of genomics. Students will
learn about patterns of genetic inheritance, understand why some types of inheritance are complex and unpredictable,
and how genes influence one another and can exhibit complex expression patterns.
PUBLIC HEALTH (220045ai)
Grades: 10 to 12 Credit: 1.0
Prerequisite(s): Biology or Biology, Honors

This course will introduce students to the concepts of health and illness in society through research of current global health events. Students will consider the roles of epidemiology, society, culture, and clinical practice and write their own health policies based on the established standard. Specific topics include: biostatistics, healthcare planning, policy development and economics, social and behavioral aspects of public health, preventing disease, disability and premature death, maternal and child health, community-based public health, and research design.

HUMAN ANATOMY AND PHYSIOLOGY (220026)
Grades: 10 to 12 Credit: 1.0
Prerequisite(s): Biology or Biology, Honors

In this lab-based course one studies the structure, function, and dysfunction of the human body by emphasizing body systems. This course is especially recommended for students interested in medical fields.

THERAPEUTIC SERVICES (490023)
Grades: 11 and 12 Credit: 1.0
Prerequisite(s): Foundations of Health Science

A one-credit course that introduces students to occupations and functions in the therapeutic services pathways. Careers in this area include nursing, medicine, physical therapy, surgical technology, respiratory therapy, emergency medical technician, and more.

NEUROSCIENCE (220045af)
Grades: 11 and 12 Credit: 1.0
Prerequisite(s): A grade of B or higher in Chemistry, Honors

Neuroscience is one of the fastest growing domains in all of science. Investigation of brain function topics may include the level of molecular genetics to cellular dynamics; brain anatomy and physiology; electrochemistry; relations between brain, behavior, and cognition; brain development and aging; and diseases of the brain. Students will participate in the yearly Brain Bee competition held at UAB in the Spring of each year. A cumulative research project closes out this course including a presentation of research to a panel of teachers.

ADVANCED FORENSIC SCIENCE (220045ac)
Grades: 11 and 12 Credit: 1.0
Prerequisite(s): At least a C or higher in each of the following courses: Honors Biology, Honors Chemistry, and at least one of the following: AP Biology, Human Anatomy & Physiology, or Genetics

This course is designed to introduce students to forensic medicine. Classes will focus on crime scene analysis, DNA evidence, blood-spatter analysis, pathology, anthropology, toxicology, fingerprint analysis, handwriting analysis, facial reconstructions, and laboratory skills of modern DNA forensics.
BIOTECHNOLOGY AND BIOINFOMATICS (220045ak)

Grades: 11 and 12  Credit: 1.0

Prerequisite(s): A grade of B or higher in Honors Biology, Genetics, and Algebra I

*This is an interdisciplinary class for teaching students about the Biotechnical industry and new genomics and bioinformatics technologies. Topics include laboratory skills, Microbiology, DNA structure and analysis, bacterial transformation, PCR and sequencing techniques, protein structure and analysis, and immunology and research practices.*

DIAGNOSTIC SERVICES (490017)

Grade: 11  Credit: 1.0

Prerequisite(s): Foundation of Health Science

Fee(s): $40 course fee, $30 HOSA dues (paid once a year, first semester - no waiver) $70 total

*A one-credit course designed to introduce students to careers in the diagnostic services pathway including electrocardiographic technician, medical laboratory technologist, radiographic technician, and pathologist.*

HEALTH SCIENCE INTERNSHIP (490013)

Grade: 12  Credit: 1.0

Prerequisite(s): Foundations of Health Science, Therapeutic Services, approval of instructor

Fee(s): $40 class fee, $15 malpractice insurance, $30 HOSA dues (paid once a year, first semester - no waiver) $85 total

*Students who meet the class requirements and have the instructor’s approval participate in internships two days per week at Huntsville Hospital and various local medical facilities where students will have hands on experience. They will research diagnoses, medications, and treatments. Approved students will have the opportunity to intern in the Operating room, Emergency Room, and Special Units. Specialized skills such as veterinarian, dental procedures, and suturing will be introduced. Must be able to provide own transportation to internships; proof of Hepatitis B vaccines, current PPD test, drug screen.*

RESEARCH AND DESIGN IN BIOLOGY (220043)

Grade: 12  Credit: 1.0

Prerequisite(s): Must have completed 6 strand classes with an overall combined B average for those 6 classes

*Students from each strand (biomedical, engineering, computer science) will be grouped together to 1) research possible solutions to current problems by reading scientific, peer-reviewed literature, 2) design a prototype by following the design process, 3) build and test their invention, 4) document using formal scientific writing, 5) present their invention and research to companies and, if applicable, competitions.*

BIOTECHNOLOGY INTERNSHIP (802209ca)

Grade: 12  Credit: 1.0

Prerequisite(s): Successful completion of Genetics or Genomics and Bioinformatics, Biotechnology Club member, and approval of instructor

*Students who meet the class requirements and have the instructor’s approval will participate in an internship at the HudsonAlpha Institute for Biotechnology and various biotechnology companies housed within the HudsonAlpha Institute to perform research, job shadow, learn laboratory and research skills/techniques, and connect with industry leaders to obtain meaningful hands-on experience. Must be able to provide own transportation to internships; proof of drug screen. Purchase of lab coat required. One semester will be dedicated to preparing for and taking the BACE (Biotechnology Assistant Credentialing Exam).*
PHARMACY TECHNOLOGY (802209cg)

Grade: 12      Credit: 1.0

Prerequisite(s): Completed application and approval of biomedical strand teacher

This course will prepare students to take the Pharmacy Technician Certification Exam at the end of their 12th grade year. Students who pass the certification exam will be prepared to work as a pharmacy technician right out of high school. Topics include: pharmacology, pharmacy law, sterilization, medication safety, quality assurance, medication ordering, inventory management, billing, and reimbursement.
Computer Science Strand students may take classes in computer programming and/or information security.

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<td>Software Development (520015)</td>
<td>Linux Programming (260003al)</td>
<td>Computer Science Internship (802209by)</td>
<td>• Cisco – CCENT</td>
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<tr>
<td></td>
<td>Python Plus (260003an)</td>
<td>App Development 1 (260003ao)</td>
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<td>• CompTIA – Security+</td>
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<tr>
<td></td>
<td></td>
<td>App Development 2 (260003ap)</td>
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<td>• Cisco – CCNA</td>
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<td>• Certified Ethical Hacker</td>
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<td>• CompTIA – Linux+</td>
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<td>• Linux Professional Institutes L1</td>
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**FOUNDATIONS OF INFORMATIONAL SECURITY (520038)**

**Grades:** 9 to 12  
**Credit:** 1.0  
**Co-requisite(s):** Must be concurrently enrolled in Algebra I or higher-level math

This course introduces students to the field of Cyber Security. Students will become familiar with Microsoft Windows and Linux Operating Systems. They will learn to use multiple numbering systems and how these systems are used in network addressing and operating system configuration. Students will also gain experience in the areas of vulnerability identification, risk assessment, risk mitigation techniques, Wi-Fi security, IP Addressing, and Informational Ethics. This course is weighted 10 points on a 100-point scale.

**COMPUTER SCIENCE FUNDAMENTALS (260003ag)**

**Grades:** 9 to 12  
**Credit:** 1.0  
**CO-requisite(s):** Must concurrently be enrolled in Algebra I or higher-level math

This course is an introduction to computer programming concepts and computational thinking. This course covers program design (using tools such as flowcharting and pseudo-code) abstraction, and algorithm development. Students will be taught to write programs using both “Drag-and-Drop (Snap!) and textural (Python) programming languages. A survey of careers in the field of computer science will also be examined.

**WEBSITE DEVELOPMENT (260003am)**

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** none

This course introduces students to the creation of websites using a variety of programming languages which may include HTML and JavaScript.
COMPUTER SCIENCE PRINCIPLES, AP (520018)
Grades: 10 to 12   Credit: 1.0
Prerequisite(s): Algebra I

This course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. Computer Science Principles, AP will give students the opportunity to use technology to address real-world problems and build relevant solutions. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

PRINCIPLES OF INFORMATION SECURITY (520039)
Grades: 9 to 12   Credit: 1.0
Prerequisite(s): Foundations of Informational Security

This course introduces students to computer network systems that are most commonly the focus of attack. Students will build and configure the common elements found on the Internet to include database servers, web servers, and web application servers. Students will be introduced to remote access terminal shells which will be vital toward penetration testing and attack vectors. This course is weighted 10 points on a 100-point scale.

SOFTWARE DEVELOPMENT (520015)
Grades: 10 to 12   Credit: 1.0
Prerequisite(s): Computer Science Fundamentals or Computer Science Principles, AP

This course was designed to provide students with an introduction to the C++ programming language, structured elements of C++, classes, data, abstractions, inheritance, polymorphism, storage management, and a C++ programming environment. It is recommended that Information Technology Fundamentals be taken prior to this course. Note: The teacher of this course must hold C++ and/or JAVA credentialing.

PYTHON PLUS (260003an)
Grades: 10 to 12   Credit: 1.0
Prerequisite(s): Computer Science Fundamentals or Computer Science Principles, AP

This course continues the study of Python programming language by building on the concepts introduced in earlier courses.

CYBER FORENSICS (520040)
Grades: 11 and 12   Credit: 1.0
Prerequisite(s): Principles of Information Security
Fee(s): $60 course fee

This class covers the methodologies behind cyber-attacks and the various types of attack techniques. Students will participate in hands on lab exercises using the latest attack tools and learn to evaluate the potential vulnerabilities of network targets. Students will be required to participate on a competitive cyber team. This course is weighted 10 points on a 100-point scale.
COMPUTER SCIENCE A, AP (520007)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Algebra II with Trigonometry, a “B” average in Math, Software Development, and approval of instructor
Fee(s): $30
This college level computer science course emphasizes object-oriented programming methodology with a concentration on problem-solving and algorithm development. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.)

LINUX PROGRAMMING (260003al)
Grades: 11 and 12  Credit: 1.0
Prerequisite(s): Algebra II with Trigonometry, a “B” average in Math and Software Development
Fee(s): $30
This course emphasizes development of programs using Linux based platform file I/O processes, inter-process communication, pattern searching, filters, pipes, and shell programming. Programming development tools include awk, C, make, and sed.

APP DEVELOPMENT 1 (260003ao)
Grades: 11 and 12  Credit: 0.5
Prerequisite(s): Algebra II with Trigonometry or above with a minimum “B” average, Computer Science Fundamentals and Software Development
This course introduces students to app development.

APP DEVELOPMENT 2 (260003ap)
Grades: 11 and 12  Credit: 0.5
Prerequisite(s): App Development 1
This course continues the study of app development.

ADVANCED CYBER FORENSICS (520042)
Grade: 12  Credit: 1.0
Prerequisite(s): Cyber Security and approval of instructor
Fee(s): $60 course fee
This second-year course provides the student with experiences in how to look for the weaknesses and vulnerabilities in target systems and uses the same knowledge and tools as a hacker. This course may lead to the Certified Ethical Hacker certification from the IC-Council. This course is weighted 10 points on a 100-point scale.

ADVANCED COMPUTER SCIENCE – DATA STRUCTURES (206003aj)
Grade: 12  Credit: 1.0
Prerequisite(s): Computer Science A, AP and approval of instructor
This course is a continuation of the Computer Science A, AP, java course and is taught using the java programming language. It covers Advanced computer science topics such as arrays, lists, matrices, sorting and searching, interfaces, recursion, stacks, heaps, queues, linked lists, hash tables, binary trees, and Big O notation.
COMPUTER SCIENCE INTERNSHIP (802209by)

Grade: 12    Credit: 1.0

Prerequisite(s): Successful completion of at least six strand classes with a B or above or administrator approval

This course involves the development of job skills by providing the student with a structured employment situation that is directly related to, and coordinated with, the educational program. Student activity in internship is planned and coordinated jointly by an institutional representative and the employer, with the employer having the responsibility for control and supervision of the student on the job. Must be able to provide own transportation to work location.
Students in the engineering strand will have the opportunity to participate in a variety of classes designed to help them explore various branches of engineering.

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<td>Computer Science Principles, AP</td>
<td>Principles of Engineering PLTW</td>
<td>Civil Engineering and Architecture</td>
<td>• Autodesk – AutoCAD Certified User</td>
</tr>
<tr>
<td>Engineering Design PLTW</td>
<td>(560015)</td>
<td>PLTW (560016)</td>
<td>PLTW (560020)</td>
<td>• Autodesk – Inventor Certified User</td>
</tr>
<tr>
<td>(5600015)</td>
<td>Advanced Aerospace Technology</td>
<td>Aeronautics Engineering Applications</td>
<td>Astronautics Engineering</td>
<td>• Autodesk – Revit Certified User</td>
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<tr>
<td>Fundamentals of</td>
<td>(560008)</td>
<td>Applications (802209cb)</td>
<td>Applications (802209ce)</td>
<td>• SolidWorks Certified Associate</td>
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<tr>
<td>Aerospace Technology</td>
<td>Software Development</td>
<td>Scientific Payload Design</td>
<td>Scientific Payload Design II</td>
<td>• Solid Edge Certified Associate</td>
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<tr>
<td>(560007)</td>
<td>(520015)</td>
<td>(802209bv)</td>
<td>(802209cf)</td>
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<td>Engineering Research and Design</td>
<td>Engineering Internship</td>
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<tr>
<td>Fundamentals</td>
<td>(802209ch)</td>
<td>(560014)</td>
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*Students in the Engineering strand may select strand courses in Engineering Design and Advanced Manufacturing, Welding, Industrial Robotics, Precision Machining, or Green Power Innovations in Science and Technology.

**INTRODUCTION TO ENGINEERING DESIGN PLTW (560015)**

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** Approval of instructor  
**Fee(s):** $60 course fee, $15 TSA dues (paid once a year, first semester - no waiver) $75 total

*In this course, students use 3D solid modeling software to help them design solutions to real world problems. Major concepts covered include the design process, research and analysis, teamwork, communication methods, engineering standards, and technical documentation.*

**FUNDAMENTALS OF AEROSPACE TECHNOLOGY (560007)**

**Grades:** 9 to 12  
**Credit:** 1.0  
**Prerequisite(s):** none

*This course is designed to prepare students for careers and further study in aerospace technologies and related industries. Students apply fundamental concepts and principles of atmospheric flight to authentic situations. Emphasis is placed on propulsion systems, ballistic projectiles, and airplane wing design.*
COMPUTER SCIENCE FUNDAMENTALS (260003ag)
Grades: 9 to 12       Credit: 1.0
CO-requisite(s): Must concurrently be enrolled in Algebra I or higher-level math

This course is an introduction to computer programming concepts and computational thinking. This course covers program design (using tools such as flowcharting and pseudo-code) abstraction, and algorithm development. Students will be taught to write programs using both “Drag-and-Drop (Snap!) and textural (Python) programming languages. A survey of careers in the field of computer science will also be examined.

ADVANCED AEROSPACE TECHNOLOGY (560008)
Grades: 10 to 12       Credit: 1.0

Prerequisite(s): Fundamentals of Aerospace Technology or approval of instructor

This course is designed to deepen the student's preparation for careers and further study in aerospace technologies and related industries. Students apply advanced principles and theories of flight to authentic projects related to atmospheric and space flight. Emphasis is placed on pneumatic projectiles, aerodynamic forces, and quality management.

COMPUTER SCIENCE PRINCIPLES, AP (520018)
Grades: 10 to 12       Credit: 1.0

Prerequisite(s): Algebra I

This course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. Computer Science Principles, AP will give students the opportunity to use technology to address real-world problems and build relevant solutions. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. This course is weighted 10 points on a 100-point scale. (Students must take the AP exam to receive the additional quality point. Extra cost for AP exam.) Students may receive math credit for this course if they have successfully passed Algebra II with Trigonometry.

SOFTWARE DEVELOPMENT (520015)
Grades: 9 to 12       Credit: 1.0

Prerequisite(s): Computer Science Fundamentals or Computer Science Principles, AP

This course was designed to provide students with an introduction to the C++ programming language, structured elements of C++, classes, data, abstractions, inheritance, polymorphism, storage management, and a C++ programming environment. It is recommended that Information Technology Fundamentals be taken prior to this course.

APPLIED ENGINEERING (802209ch)
Grades: 10 to 12       Credit: 1.0

Prerequisite(s): Computer Science Fundamentals or Computer Science Principles, AP

This course uses hands-on engineering curricula aligned to math standards that will encourage students to address real-world challenges while honing their abstract, spatial, reasoning, and critical thinking skills. Every lesson and activity is explicitly aligned to science and/or math standards to reinforce core content while building experience with engineering concepts. Students will use creativity, systems thinking, collaboration, communication, and ethical considerations to complete investigations, models, and simulations of engineering challenges.
PRINCIPLES OF ENGINEERING PLTW (560016)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): Introduction to Engineering Design
Fee(s): $60 course fee $15 TSA dues (paid once a year, first semester - no waiver) $75 total
This survey course of engineering exposes students to some of the major concepts they will encounter in a post-secondary engineering course of study. Students have the opportunity to investigate engineering and scientific concepts in the solution of engineering design challenges.

AERONAUTICS ENGINEERING APPLICATIONS (802209cb)
Grades: 10 to 12  Credit: 1.0
Prerequisite(s): Approval of instructor
This course was designed to explore the application of engineering principles in various technological areas including construction, transportation, communication, manufacturing, and bioengineering.

SCIENTIFIC PAYLOAD DESIGN (802209cf)
Grades: 11 to 12  Credit: 1.0
Prerequisite(s): none
This course uses hands-on engineering curricula aligned to math standards that will encourage students to address real-world challenges while honing their abstract, spatial, reasoning, and critical thinking skills. Every lesson and activity is explicitly aligned to science and/or math standards to reinforce core content while building experience with engineering concepts. Students will use creativity, systems thinking, collaboration, communication, and ethical considerations to complete investigations, models, and simulations of engineering challenges.

CIVIL ENGINEERING AND ARCHITECTURE PLTW (560020)
Grades: 11 to 12  Credit: 1.0
Prerequisite(s): Principles of Engineering
Fee(s): $60 course fee, $15 TSA dues (paid once a year, first semester - no waiver) $75 total
This course introduces students to the interdependent fields of civil engineering and architecture. Students learn project planning, site planning, and building design.

ASTRONAUTICS ENGINEERING APPLICATIONS (802209ce)
Grade: 12  Credit: 1.0
Prerequisite(s): Aeronautics Engineering Applications or engineering teacher approval
This capstone course focuses on outer space and underwater applications. Students will work on six projects covering topics such as creating and testing a laser communication system, planning for space survivability in a hostile environment and creating an underwater exploration vehicle.
SCIENTIFIC PAYLOAD DESIGN II (802209bz)
Grade: 12       Credit: 1.0
Prerequisite(s): Scientific Payload Design and teacher approval

This course uses hands-on engineering curricula aligned to math standards that will encourage students to address real-world challenges while honing their abstract, spatial, reasoning, and critical thinking skills. Every lesson and activity is explicitly aligned to science and/or math standards to reinforce core content while building experience with engineering concepts. Students will use creativity, systems thinking, collaboration, communication, and ethical considerations to complete investigations, models, and simulations of engineering challenges.

ENGINEERING RESEARCH AND DESIGN (560014)
Grade: 12       Credit: 1.0
Prerequisite(s): none

Students conduct research and design engineering projects to enhance and expand their interest in the field of engineering.

ENGINEERING INTERNSHIP (802209bz)
Grade: 12       Credit: 1.0
Prerequisite(s): Successful completion of at least six strand classes with a B or above or administrator approval.

This course involves the development of job skills by providing the student with a structured employment situation that is directly related to, and coordinated with, the educational program. Student activity in internship is planned and coordinated jointly by an institutional representative and the employer, with the employer having the responsibility for control and supervision of the student on the job. Must be able to provide own transportation to work location.
TECHNICAL WRITING I (200036ai) SEMESTER
Grades: 11 and 12  Credit: 0.5
Prerequisite(s): English 10

Technical Writing is designed to prepare students for the communication activities encountered on the job or in other courses. This course presents students with practical information about communicating in different kinds of workplace environments and professional/technical discourse communities.

TECHNICAL WRITING II (200036aj) SEMESTER
Grades: 11 and 12  Credit: 0.5
Prerequisite(s): Technical Writing I

This course will continue to present students with practical information about communicating in different kinds of workplace environments and professional/technical discourse communities.

SCIENCE FICTION STUDIES (200036ak) SEMESTER
Grades: 10 and 12  Credit: 0.5
Prerequisite(s): English 9

This course will explore fantasy in general and science fiction in specific both as art and as insights into ourselves and our world.

THE HISTORY OF TECHNOLOGY (802209bd) SEMESTER
Grades: 9 and 12  Credit: 0.5
Prerequisite(s): none

This course will trace the development of technology beginning from the second industrial revolution with a focus on emerging communications technology.

INTRODUCTION TO ROBOTICS (540031)
Grade: 9 to 12  Credit: 1.0
Prerequisite(s): none

Fee(s): $60 course fee, $20 SkillsUSA dues (paid once a year, first semester - no waiver) $80 total

A one-credit course designed to introduce students to the fundamentals of robotics. The course emphasizes fundamentals of electrical current, digital circuits, electronic control systems, and the design and operation of robotic systems.
**ESSENTIAL/LIFE SKILLS COURSES (required for Special Education students earning core credit through Essential/Life Skills courses)**

These courses are for students with or without disabilities earning core credit through the Essentials/Life Skills courses. Students pursuing an Alabama High School Diploma through this pathway must participate in Community Based Work Training or have documentation of previous work experience in addition to the course requirements. These courses are not appropriate for students who plan to attend a four-year college. These courses are not accepted by four year colleges or the NCAA.

**ENGLISH ESSENTIALS 9 (700005)**  
**ENGLISH ESSENTIALS 10 (700006)**  
**ENGLISH ESSENTIALS 11 (700007)**  
**ENGLISH ESSENTIALS 12 (700008)**

These courses provide students with a practical knowledge of language and literature for grades 9 through 12. These courses also include the refinement of reading, writing, editing and speaking skills. English Essentials is designed to prepare students for Postsecondary education and employment.

**ALGEBRAIC CONCEPTS (700015)**

This course provides students with prerequisite algebra skills identified in the general education math courses. The course includes essential concepts to prepare students for Algebraic Essentials A and B.

**ALGEBRAIC ESSENTIALS A (700016)**  
**ALGEBRAIC ESSENTIALS B (700017)**

These courses provide students with foundational skills identified in the general education Algebra I course. Algebraic Essentials A and B include essential concepts to equip students with the algebra skills necessary for employment and independent living.

**GEOMETRY ESSENTIALS A (700018)**  
**GEOMETRY ESSENTIALS B (700019)**

These courses provide students with foundational skills identified in the general education Geometry course. Geometry Essentials A and B include essential concepts to equip students with the geometry skills necessary for employment and independent living.

**ESSENTIALS ALGEBRA II (750701)**

This course provides students with foundational skills identified in the general education Algebra II course. The course includes algebra concepts to equip students with more advanced algebra skills necessary for employment and independent living.

**ESSENTIALS: PHYSICAL SCIENCE (750101)**

This course is designed to provide students with practical knowledge of Physical Science including scientific process and application skills; periodic table; solutions; bonding; chemical formulas; physical and chemical change; gravitational, electromagnetic, and nuclear forces; motion; energy; energy transformation; electricity and magnetism; nuclear science; metric units.
ESSENTIALS: BIOLOGY (750201)
This course is designed to provide students with practical knowledge of Biology including process and application skills; cell processes; cell theory; photosynthesis and cellular respiration; genetics; classification; plants; animals; ecology; biogeochemical cycles.

ESSENTIALS: EARTH AND SPACE SCIENCE (750301)
This course is designed to provide students with practical knowledge of Earth and Space Science including scientific process and application skills; energy in the Earth system; weather; seasons; theories for origin and age of the universe; stars, pulsars, quasars, black holes, and galaxies; Earth and space scientists; space exploration.

ESSENTIALS: ENVIRONMENTAL SCIENCE (750401)
This course is designed to provide students with a practical knowledge of Environmental Science including scientific process and application skills; natural and human impacts; carrying capacity; renewable and nonrenewable energy resources; properties and importance of water; land use practices; composition and erosion of soil.

ESSENTIALS: HUMAN ANATOMY AND PHYSIOLOGY (750501)
This course is designed to provide students with a practical knowledge of Human Anatomy and Physiology including scientific process and application skills; anatomical terminology; structure and function of cells, tissues, and body systems; biochemistry; system regulation and integration.

LS I: WORLD HISTORY (700031)
This course is a study of world history from 1500 to the present. Students can apply and utilize their knowledge to develop informed opinions about issues such as the quest for peace, human rights, trade, global ecology, and the impact each has on everyday life situations.

LS II: U.S. HISTORY TO 1877 (700032)
This course follows a chronological study of major events, issues, movements, leaders, and groups of people of the United States through Reconstruction from a national and Alabama perspective.

LS III: U.S. HISTORY FROM 1877 (700033)
This course begins with the post-Reconstruction United States and its shift into a more industrialized society and continues through the twentieth century to the present.

LS IV: ECONOMICS (700034)
This course focuses on the functions and institutions of modern-day economic systems and theory. Students gain skills that will enable them to anticipate changes in economic conditions and how to adjust to the changes to improve their lives and their communities.

LS IV: U.S. GOVERNMENT (700035)
This course focuses on the origins, structure, and functions of government at all levels. It also includes a detailed study of the constitution of the United States and its provisions.
ESSENTIALS: CAREER PREPAREDNESS (700043)
This course is for Essentials pathway students only. It is for students who need work hours and are not able to work in a traditional job.

TRANSITION SERVICES I (600301)
This course will prepare students to become self-advocates, participate in postsecondary education and/or training to gain meaningful employment, and support community participation as they plan for life after high school.

TRANSITION SERVICES II (700041)
This course will provide additional transitional services preparation for students to become self-advocates, participate in postsecondary education and/or training to gain meaningful employment and support community participation as they plan for life after high school. This course meets the requirement for the Essentials/Life Skills Pathway.

COURSE SEQUENCE FOR ALTERNATE ACHIEVEMENT STANDARDS (AAS) (required for Special Education students earning core credit through AAS)

AAS: ENGLISH LANGUAGE ARTS 9 (600439)
AAS: ENGLISH LANGUAGE ARTS 10 (600440)
AAS: ENGLISH LANGUAGE ARTS 11 (600441)
AAS: ENGLISH LANGUAGE ARTS 12 (600442)
These courses apply to students with severe cognitive disabilities who are enrolled in English language arts using alternate achievement standards (Extended Standards 9th through 12th) which are aligned to the Alabama Course of Study.

AAS: READING 9 (600419)
AAS: READING 10 (600420)
AAS: READING 11 (600421)
AAS: READING 12 (600422)
These courses apply to students with severe cognitive disabilities who are enrolled in reading using alternate achievement standards (Extended Standards 9th through 12th) which are aligned to the Alabama Course of Study.

AAS: MATHEMATICS 9 (600459)
AAS: MATHEMATICS 10 (600460)
AAS: MATHEMATICS 11 (600461)
AAS: MATHEMATICS 12 (600462)
These courses apply to students with severe cognitive disabilities who are enrolled in math using alternate achievement standards (Extended Standards 9th through 12th) which are aligned to the Alabama Course of Study.

AAS: SCIENCE 9 (600479)
AAS: SCIENCE 10 (600480)
AAS: SCIENCE 11 (600481)
AAS: SCIENCE 12 (600482)
These courses apply to students with severe cognitive disabilities enrolled in science using alternate achievement standards (Extended Standards 9th through 12th) which are aligned to the Alabama Course of Study.

AAS: SOCIAL STUDIES 9 (600499)
These courses apply to students with severe cognitive disabilities who are enrolled in social studies using alternate achievement standards (Extended Standards 9th through 12th) which are aligned to the Alabama Course of Study.

**COURSE REQUIREMENTS FOR ALTERNATE ACHIEVEMENT STANDARDS (AAS)** (required for Special Education students earning core credit through AAS. One credit is required for each course, but students can take course at any grade level.)

AAS: COMMUNITY BASED INSTRUCTION 9 (600541)
AAS: COMMUNITY BASED INSTRUCTION 10 (600542)
AAS: COMMUNITY BASED INSTRUCTION 11 (600543)
AAS: COMMUNITY BASED INSTRUCTION 12 (600544)

These courses apply to students with severe cognitive disabilities enrolled in a community based instruction course using alternate achievement standards (Extended Standards 9th through 12th).

AAS: ELECTIVE 9 (600551)
AAS: ELECTIVE 10 (600552)
AAS: ELECTIVE 11 (600553)
AAS: ELECTIVE 12 (600554)

These courses apply to students with severe cognitive disabilities enrolled in an elective course using alternative achievement standards.

AAS: LIFE SKILLS 9 (600512)
AAS: LIFE SKILLS 10 (600513)
AAS: LIFE SKILLS 11 (600514)
AAS: LIFE SKILLS 12 (600515)

These courses apply to students with severe cognitive disabilities who are enrolled in a life skills course and are assessed using alternate achievement standards (Extended Standards 9th through 12th).

AAS: PRE-VOCATIONAL 9 (600521)
AAS: PRE-VOCATIONAL 10 (600522)
AAS: PRE-VOCATIONAL 11 (600523)
AAS: PRE-VOCATIONAL 12 (600524)

These courses apply to students with severe cognitive disabilities who are enrolled in a pre-vocational course and are assessed using alternate achievement standards (Extended Standards 9th through 12th).
AAS: VOCATIONAL 9 (600531)
AAS: VOCATIONAL 10 (600532)
AAS: VOCATIONAL 11 (600533)
AAS: VOCATIONAL 12 (600534)
These courses apply to students with severe cognitive disabilities who are enrolled in a vocational course and are assessed using alternate achievement standards (Extended Standards 9th through 12th).

AAS: PROJECT SEARCH (600556)
A one year high school transition program, hosted at a business site to include classroom instruction, career exploration, and on the job training.

AAS: READING BEYOND 1 (650202)
AAS: READING BEYOND 2 (650302)
AAS: READING BEYOND 3 (650402)
AAS: READING BEYOND 4 (650502)
These courses are for the first four years after exit year. Reading curriculum and goals are based on the student’s academic and transition needs as identified in his or her IEP.

AAS: MATHEMATICS BEYOND 1 (650602)
AAS: MATHEMATICS BEYOND 2 (650802)
AAS: MATHEMATICS BEYOND 3 (650902)
AAS: MATHEMATICS BEYOND 4 (651002)
These courses are for the first four years after exit year. Mathematics curriculum and goals are based on the student’s academic and transition needs as identified in his or her IEP.

AAS: COMMUNITY-BASED INSTRUCTION BEYOND 1 (651112)
AAS: COMMUNITY-BASED INSTRUCTION BEYOND 2 (651302)
AAS: COMMUNITY-BASED INSTRUCTION BEYOND 3 (651402)
AAS: COMMUNITY-BASED INSTRUCTION BEYOND 4 (651502)
These courses are for the first four years after exit year. Courses emphasize learning beyond the classroom through community integration.

AAS: LIFE SKILLS BEYOND 1 (651612)
AAS: LIFE SKILLS BEYOND 2 (652105)
AAS: LIFE SKILLS BEYOND 3 (652205)
AAS: LIFE SKILLS BEYOND 4 (653105)
These courses are for the first four years after exit year. Courses objectives increasing independence and self-determination skills.

AAS: VOCATIONAL BEYOND 1 (653205)
AAS: VOCATIONAL BEYOND 2 (653215)
AAS: VOCATIONAL BEYOND 3 (654105)
AAS: VOCATIONAL BEYOND 4 (654205)
These courses are for the first four years after exit year. Courses objectives increasing job readiness and employable skills.

AAS: ELECTIVE BEYOND 1 (654207)
These courses are for the first four years after exit year. Courses objectives increasing job readiness and employable skills.

**SPECIAL EDUCATION ELECTIVES**

TRANSITION SERVICES 9 (600304)
TRANSITION SERVICES 10 (600305)
TRANSITION SERVICES 11 (600306)
TRANSITION SERVICES 12 (600307)

These courses apply to the Alabama's four tier transition standards. These standards are based on the scope and sequence that includes the transition strands: (1) academics/training (AT), (2) occupations and careers (OC), (3) personal/social (PS), and (4) daily living (DL). Students will develop fundamental transition skills needed for positive post-school outcomes. Instruction for the Transition Services courses may take place both within the classroom and the community.