SCIENCE HILL HIGH SCHOOL

Program of Studies

Science Hill High School reserves the right to change curriculum and class offerings as needed. This book assists students during registration but does not guarantee course availability. Students will be informed of any changes during registration or at the start of the next school year. Staff changes and budget approvals may also affect course offerings, and classes may be dropped if enrollment is low.

School Year
2025 - 2026

TABLE OF CONTENTS

Graduation Requirements

To graduate from Science Hill High School, students must meet the graduation requirements established for the year they first entered the 9th grade. Students should plan to exceed these requirements to prepare adequately for post-secondary success.

Please note that on the block schedule, students have 32 opportunities in four years to earn the required 28 credits for graduation. Students and parents are strongly urged to work closely with the student's counselor to ensure requirements for graduation are being met. Only students who have completed all requirements for graduation will be allowed to participate in the graduation ceremony.

Students need 28 credits and complete 40 community service hours to graduate with a Science Hill diploma. The state of Tennessee designates 22 of those credits, which leave students 6 credits to take as electives. Any student who attends a Tennessee Public High School their junior year is required to take the ACT to graduate and receive a regular high school diploma. Students must have a satisfactory record of attendance and discipline. All students must also take and pass a United States Civics Test and complete a project-based civics assessment administered in the Government course to graduate and receive a regular high school diploma.

ENGLISH	4 credits	English 1, English 2, English 3, English 4
MATH	4 credits	Algebra 1, Geometry, Algebra 2, and one additional math *Students must be enrolled in math for at least 3 years of high school. Math credits earned before ninth grade can count toward diploma requirements, but students must complete three additional math credits and be enrolled in math for at least three years of high school.
SCIENCE	3 credits	Biology, Chemistry or Physics, and a third science lab course
SOCIAL STUDIES	3 credits	World History & Geography, US History & Geography, US Government & Civics, Economics
COMPUTER SCIENCE		Beginning with freshman cohort Fall 2024. See Allowable Substitutions on page 5.
WELLNESS	1 credit	
PERSONAL FITNESS	0.5 credit	
PERSONAL FINANCE	0.5 credit	
WORLD LANGUAGE	2 credits	Two credits must be the same language
FINE ART	1 credit	
ELECTIVE FOCUS	3 credits	Includes three credits in any one of the following: Advanced Placement/Dual Enrollment, Career and Technical Education program, Fine Arts, Human Performance & Exercise Science, Humanities, JROTC, Math & Science
OTHER ELECTIVES	6 credits	
40 Hours of Community Service Required		

Total credits required by TN: 22 Total credits required by Science Hill High School: 28

Allowable Substitutions for Required Courses

Required Course	Allowed Substitution
Computer Science	AP Computer Science Principles AP Computer Science A Computer Science Foundations Cybersecurity I Cybersecurity II Dual Enrollment Computer Science Program
Economics	AP Microeconomics AP Macroeconomics Dual Enrollment Business Program Dual Enrollment Economics Program Marketing & Management I
English 3 or 4	AP English Language & Composition AP English Literature & Composition AP Research AP Seminar Dual Enrollment English Program SDC Speech & Communication (Eng 4 if taken senior year)
Fine Arts	AP Art (2-D, 3-D, Drawing) AP Music Theory Dual Enrollment Fine Arts Program Landscaping & Turf Science
Fourth Year Math	AP Computer Science Principles AP Computer Science A AP Mathematics Program AP Physics I: Algebra-Based AP Physics II: Algebra-Based Computer Science Computer Science Foundations Cybersecurity I Cybersecurity II Dual Enrollment Computer Science Program Dual Enrollment Mathematics Program Physics
Personal Finance	3rd Semester JROTC Business Management Dual Enrollment Business Program
Physical Education	JROTC I Fall & Spring
Third Year Lab Science	Agriscience AP Science Program AP Computer Science Principles AP Computer Science A Clinical Internship Computer Science Computer Science Foundations Cybersecurity I Cybersecurity II Dual Enrollment Computer Science Program Dual Enrollment Science Program Nursing Education
U.S. Government	3rd Semester JROTC AP United States Government and Politics Dual Enrollment U.S./American History Program
Wellness	JROTC I Fall & Spring

Area of Focus

Students will complete an area of focus earning no less than **three** credits in a program of study focusing on a particular concentration made up of three focused electives beyond the graduation requirements.

Advanced Placement/Dual Enrollment	Any three AP/DE classes including those required for graduation. Students may count an AP/DE class towards both a graduation requirement and an area of focus requirement at the same time
CTE	Three classes in the same CTE Program of Study
Fine Art	Any additional three performing or visual art classes beyond the graduation requirement
Human Performance & Exercise Science	Any additional two PE classes beyond the graduation requirement and Human Anatomy & Physiology
Humanities	Any combination of additional three English, Social Studies and/or World Language classes beyond the graduation requirement
JROTC	Three JROTC classes taken that do not already count for other substitutions. 2 credits can be substituted for Wellness requirement and ½ PE credit, 3rd JROTC credit can be substituted for US Government and Finance
Math & Science	Any additional three math and/or science classes that are above the graduation requirement

Mandatory ACT

The Tennessee Department of Education requires that all students must take the ACT if enrolled in a Tennessee Public School during their junior year of high school. All juniors will take the ACT on the state testing date in the spring semester.

Civics Exam

Every student must pass a Civics Exam before graduation to earn a regular diploma. This exam will be administered through Canvas in Government classes. Any student enrolled in AP Government, dual enrollment social studies or transfers in with a Government credit must still take the Civics exam. Students must also complete the project-based civics assessment, which is completed through the Government classes.

Community Service

Students attending SHHS must complete 40 hours of community service as a graduation requirement. The community service hours must be completed outside of the regular school day except for Summer of Service, which is part of summer school. As hours are completed, students submit a signed verification form to the SHHS Registrar. Verification forms are in the SHHS Main Office and on Counselor Row. The form is also on the school website (click on Counselors>Community Service>Important Links find "Community Service Form"). Any organization of the student's or parent's choice may be used to acquire hours. If students need help finding ways to volunteer, the counselor's community service page of the SHHS web site has a list of opportunities.

End of Course Exams and Final Exams

All students will be required to take the state End of Course examinations (Algebra 1, Geometry, Algebra 2, English 1, English 2, Biology 1, U.S. History) and the EOC results will be 15% of the semester grade. Students who do not take the EOC exam will receive a grade of zero for the EOC. EOC courses may also have a final exam, which will count as a test grade in the last quarter of the semester.

Final Grades and GPA

Credits are awarded based on the final grades at the end of each semester for semester-long courses and at the end of the year for year-long courses. The final grade for the course is what is recorded on the student's transcript. The cumulative GPA is calculated from final grades. GPA for graduation recognition is calculated after the Fall Semester of the senior year.

Credit for High School Courses Completed in Middle School

Students who have successfully completed high school courses for credit prior to ninth grade can receive credit(s) toward graduation. The course content must be based on the appropriate state curriculum standards. With principal approval, a student may repeat a course taken prior to ninth grade. If a course is repeated, there will be no record of the course taken before the ninth grade on the high school transcript. For grade level cohorts beginning with the class of 2027, courses taken for high school credit prior to ninth grade will be included in the calculation of the GPA. Math credits earned before ninth grade can count toward diploma requirements, but students must complete three additional math credits and be enrolled in math for at least three years of high school.

Transfer Credits

Students who transfer into Science Hill High School from non-block schedule schools will be awarded credits for which they have earned. Students who have not completed a full-credit in core academic courses will be registered, schedule permitting, for the same full-credit course at Science Hill. The original ½ credit will still be awarded to the student and appear on the transcript. For students who transfer in with ½ credit in non-core courses, counselors will analyze the transfer transcript and award credit and may also recommend an alternate route via our online offerings to complete the full credit. The student may pre-test and then complete work based on the pre-test and the resulting credit will appear on the Science Hill transcript as a regular course fulfilling the credit requirement.

Topper Academy

As a "school within a school", Topper Academy provides an educational setting that provides both face-to-face and blended instruction to enable students to complete academic requirements in a self-paced, personalized environment. All courses offered at Topper Academy meet the graduation requirements for both a State of Tennessee diploma (22 credits) and a Science Hill High School diploma (28 credits). Topper Academy staff will analyze the transcripts of incoming students and plan a personalized pathway for each student.

Grade Classification

Students are classified as freshmen (cohort) at the beginning of their first year in high school. Students roll up to the next grade regardless of number of credits earned but must earn the required credits to graduate. Students have 4 years to graduate with their entering freshman class. **Ninth graders who earn fewer than four credits may begin their sophomore year at the Topper Academy to recover credits.**

World Language/Fine Arts Waiver

Most four-year universities require two high school credits in a world language and one fine art to be eligible for enrollment. The credit requirement for world language and/or fine arts may be waived by the local school district for students, under certain circumstances, to expand and enhance the elective focus. Students choosing this option must meet with their counselor and return a completed World Language/Fine Arts Waiver form.

Repeating a Course/Improving Grade

Students who fail a course required for graduation must earn the credit in one of the following ways:

- Repeat the full course in a SHHS traditional setting during the school year.
- Repeat the full course in a SHHS online course in the summer or school year.
- Complete the course in a SHHS credit recovery setting in the summer or school year.
    - Students must score at least 50% to be eligible for credit recovery.

For students who repeat the course in either the SHHS traditional or online setting, on the student's transcript, "NC" for non-credit will be issued for the failed course, and the failing grade will be removed from the student's cumulative GPA. The student's transcript and cumulative GPA will reflect the grade earned in the repeated course.

Students must receive approval by their counselor to complete the failed course through SHHS credit recovery. Administrative guidelines establish the process for earning credit through this program. For students who repeat the course in credit recovery, on the student's transcript, "NC" for non-credit will be issued for the failed course, and the failing grade will be removed from the student's cumulative GPA. Until the 2022-23 school year, students passing credit recovery courses received a grade of seventy percent (70%) under the state uniform grading system. For grades issued in the 2022-23 school year and thereafter, students passing credit recovery courses shall receive a grade of sixty (60%) percent under the state uniform grading system and "CR" will be listed by the course name to indicate the course was completed through Credit Recovery. The NCAA may not recognize credits earned through a credit recovery program.

Students who desire to improve their grade in a course taken at Science Hill must do so in one of the following ways:

- Repeat the full course in a SHHS traditional setting in the regular school year.
- Repeat the full course in a SHHS online course in the summer or school year.
- In extenuating circumstances, the counseling staff and administration of Science Hill may approve a student to repeat the full course in a Niswonger Foundation online course, which requires the student to pay a class access fee of $145 or the current rate for the Niswonger course.

Students must receive approval by their counselor and a SH administrator to improve a grade in a course for which they already have credit. Generally, students are not permitted to repeat a course to improve a grade if they have already passed the next course in the sequence. On the student's transcript, "NC" for non-credit will be issued for the original course, and the original grade will be removed from the student's cumulative GPA. The student's transcript and cumulative GPA will reflect the grade earned in the repeated course.

Science Hill High School Grading Scale

Grade	Percentage Range
A	90 - 100
B	80 - 89
C	70 - 79
D	60 - 69
F	0 - 59

- All high school grades are determined on the above percentage scale.
- Honors courses will have three (3) points added to the calculated average at the end of the semester.
- Statewide Dual Credit courses will have four (4) points added to the calculated average at the end of the semester if the student took the State Dual Credit Challenge Exam.
- Local Dual Credit courses will have four (4) points added to the calculated average at the end of the semester if the student took the local dual credit challenge exam.
- Industry Certification-aligned courses will have four (4) points added to the calculated average at the end of the semester if the student took the industry certification exam.
- Advanced Placement courses will have five (5) points added to the calculated average at the end of the semester. Student must take the AP exam in May to receive the extra points.

Calculating GPA

Each student will be assigned two Grade Point Averages (GPA's). One GPA will follow the State of Tennessee's Uniform Grading Policy and will be used to determine Hope Scholarship eligibility. This GPA will be labeled as "Hope Scholarship GPA". GPA calculation shall be on a 4.0 scale by assigning the following grade points: A = 4, B = 3, C = 2, D = 1 and F = 0. The GPA is the official method for calculating HOPE Scholarship eligibility, and shall be calculated by multiplying the quality points assigned to each course grade by the credit available for each course and dividing by the total number of credits available. This calculation shall be based on grades at the end of each qualifying course.
Students will also be assigned a "Weighted GPA". The weighted GPA **WILL NOT** be used for the purposes of determining eligibility for Hope Scholarship. The following point scales are applicable for the weighted GPA:

AP Courses (must complete course and take AP Exam), **Dual Enrollment Courses**: A = 5, B = 4, C = 3, D = 2, F = 1

Industry Certification Courses (must earn Industry Cert)**, Local Dual Credit Courses** (must complete course and take challenge exam), **Statewide Dual Credit Courses** (must complete course and take challenge exam): A = 4.75, B = 3.75, C = 2.75, D = 1.75, F = 0.75

Honors Courses (must complete the course): A = 4.5, B = 3.5, C = 2.5, D = 1.5, F = 0.5

Athletic Eligibility

Meeting the academic requirements for athletic eligibility is the responsibility of the student. The TSSAA requires students to earn at least 6 credits during the preceding school year to participate in athletics. Students whose 19th birthday is on or before August 1st may not participate in athletics. To be eligible as 9th graders, students must be **academically** promoted to the next grade.

Students interested in competing in athletics during their initial year of college must meet the eligibility requirements set by the NCAA. These requirements include specific high school coursework, along with a minimum Grade Point Average and ACT/SAT score. Students should register with the NCAA Eligibility Center during their junior year and complete registration at www.eligibilitycenter.org. To view requirements, visit the website below.
(http://fs.ncaa.org/Docs/eligibility_center/Student_Resources/CBSA.pdf)

Certain courses will not count for NCAA core course requirements. Credit Recovery courses may not be approved for core courses by the NCAA Eligibility Center. Please remember that the NCAA only considers grades in core classes for eligibility purposes.

NCAA Clearinghouse - www.eligibilitycenter.org NAIA – www.playnaia.org

Diplomas for Graduation

ALTERNATE ACADEMIC DIPLOMA

An alternate academic diploma may be awarded to students with the most significant cognitive disabilities at the end of their fourth (4th) year of high schools who have:

1. Participated in the high school alternate assessments;
2. Earned the prescribed 22 credit minimum;
3. Received special education services or supports and made satisfactory progress on an individualized education program (IEP);
4. Maintained satisfactory records of attendance and conduct; and
5. Completed a transition assessment(s) that measures, at a minimum, postsecondary education and training, employment, and independent living, and community involvement.

Students who earn an AAD shall continue to be eligible for special education services under IDEA until the student receives a regular high school diploma or through the school year in which the student turns 22 years of age.

AP CAPSTONE DIPLOMA

Earn scores of 3 or higher in both of the AP Capstone courses and on four additional AP Exams of their choosing will receive the AP Capstone Diploma from the College Board.

AP CAPSTONE CERTIFICATE

Earn scores of 3 or higher in both of the AP Capstone courses but not on the four additional AP Exams will receive the AP Seminar and Research Certificate, signifying successful performance in those courses.

INDUSTRY 4.0 DIPLOMA

Earn at least nine credits of dual enrollment or work-based learning (WBL), meet no less than once per month during the school year with a career coach, and fulfill all other graduation requirements to earn the Industry 4.0 Diploma Distinction.

Graduation Distinctions

A variety of honors and distinctions may be awarded to graduating students meeting state or locally specified criteria. All diplomas must include 28 credits and 40 hours community service requirement. Determination of "Graduating with Honors" and "Graduating with Distinction" is made at the end of the students' seventh semester. All documentation for distinctions must be submitted by the student to the counselor to be considered for graduation.

CAREER READINESS

Students graduating with a gold or platinum medal on National Career Readiness Certificate (WorkKeys) shall be recognized at their graduation ceremony.

COMMUNITY SERVICE

Students who voluntarily complete at least ten hours of community service each semester the student attends a public high school shall be recognized at their graduation ceremony (i.e. if a student is at SHHS for all four years of high school, then the total needed would be 80 hours or 10 for each of the 8 semesters).

DISTRICT DISTINCTION

Students shall be recognized as graduating with district distinction if they have met the graduation requirements, have obtained an overall grade point average of at least a 3.0 or higher on a 4.0 scale, and have earned an industry certification in his or her career interest category or a regionally-recognized industry certification.

DISTRICT HONORS

For the purposes of Johnson City Schools graduation with honors recognition, the following Latin system based on the weighted seventh semester GPA will be used:

Summa Cum Laude	4.25 and above
Magna Cum Laude	4.00-4.25
Cum Laude	3.75-3.99

STATE DISTINCTION

Students will be recognized as graduating with "state distinction" by attaining a B or better average and completing one (1) of the following:

- Earn a national and/or state recognized industry certification;
- Participate in at least one (1) of the Governor's Schools;
- Participate in one (1) of the state's ALL State musical organizations;
- Earn statewide recognition or award at a skill- or knowledge-based state tournament, convention, or competition hosted by a statewide student organization, and/or qualify for national recognition by a national student organization;
- Be selected as a National Merit Finalist or Semi-Finalist;
- Attain a score of thirty-one (31) or higher composite score on the ACT or SAT equivalent;
- Attain a score of three (3) or higher on at least two advanced placement exams;
- Earn twelve (12) or more semester hours of postsecondary credit.

STATE HONORS

Students who score at or above all the subject area readiness benchmarks on the ACT or equivalent score on the SAT will graduate with state honors.

ACT College Readiness Benchmark Scores*:

English	Math	Reading	Science
18	22	22	23

*subject to change as determined by ACT

SEAL OF BILITERACY

Students who have attained a high level of proficiency in speaking, reading, and writing in one or more languages in addition to English will earn a "Seal of Biliteracy." Students receiving this recognition shall meet the following criteria:

- Complete all English language arts requirements for graduation with an overall grade point average of 3.0 or higher in those classes;
- Demonstrate English proficiency through one of the following:
    - Score at the on-track or mastered level on each ELA end-of-course assessment taken;
    - Score 3 or higher on an Advanced Placement English Language or English Literature exam; B1 or higher on a Cambridge International English exam; or 4 or higher on an International Baccalaureate English exam;
    - Score 22 or higher on the ACT Reading subtest or 480 or higher on the SAT evidence-based reading and writing subtest; or
    - Score 4.5 or higher on the WIDA Access, if the student is an English learner; and
- Demonstrate proficiency in a world language through one of the following:
    - Score Intermediate-Mid or higher in all three communication modes (interpersonal, interpretive, and presentational) on a world language proficiency assessment recognized by the American Council on the Teaching of Foreign Languages;
    - Score 3 or higher on an Advanced Placement world language exam; B1 or higher on a Cambridge International world language exam; or 4 or higher on an International Baccalaureate world language exam;
    - Score at the Intermediate level or higher on the Sign Language Proficiency Interview (SLPI: ASL);
    - Pass a foreign government's approved non-English language exam, or score at a level comparable to Intermediate-Mid or higher on the ACTFL proficiency scale on another country's secondary level standardized exam in the country's non-English native language;
    - Score at a level comparable to Intermediate-Mid or higher on the ACTFL proficiency scale on an LEA developed alternate model. Alternate models may only be used if the identified world language does not have an associated nationally recognized assessment and must address communication, cultures, connections, comparisons, and communities.

Each local board shall affix an appropriate insignia to the diploma of the qualifying student indicating that the student has been awarded a Tennessee Seal of Biliteracy.

TENNESSEE TRI-STAR SCHOLAR

A student who earns a composite score of 19 or higher on the ACT, or an equivalent score on the SAT, and earns a capstone industry credential as promoted by the Department of Education, shall be recognized as a "Tennessee Tri-Star Scholar" upon graduation from high school. A student who fulfills the requirements of the Tennessee Work Ethic Distinction program shall also be recognized as a Tennessee Tri-Star Scholar upon graduation from high school. The public high school shall recognize the student's achievement at the graduation ceremony by placing an appropriate designation on the student's diploma, or other credential, or by providing a ribbon or cord to be worn with graduation regalia. The student shall be noted as a Tennessee Tri-Star Scholar in the school's graduation program.

Advanced Placement Courses

The College Board's Advanced Placement Program® (AP) enables students to pursue college-level studies while still in high school. Advanced Placement courses provide challenging learning opportunities that parallel the expectations of college level courses. These courses prepare students to take the Advanced Placement examinations administered in May of each year. AP Exams are scored on a scale of 1 to 5. Many U.S. colleges grant credit for scores of 3 and above. Each college/university establishes their own AP policy and will require different scores in order to earn college credit. Please note that some colleges/programs do not grant credit for AP courses regardless of the score achieved. We encourage students to go to the college website and conduct a search on "AP Policy" for each school they are considering in order to learn more.

All students taking Advanced Placement (AP) courses are required to take the respective AP exam for each course. The Johnson City Board of Education pays for the AP exam for every student who completes the course in which they are enrolled. Any student who does not complete the AP curriculum and/or does not take the AP exam is at risk of losing the AP designation on their transcript, losing the additional 5 percentage points, reimbursing the district of AP exam cost, loss of the weighted GPA calculation, and/or loss of future opportunities to take AP courses.

ADVANCED PLACEMENT CAPSTONE™

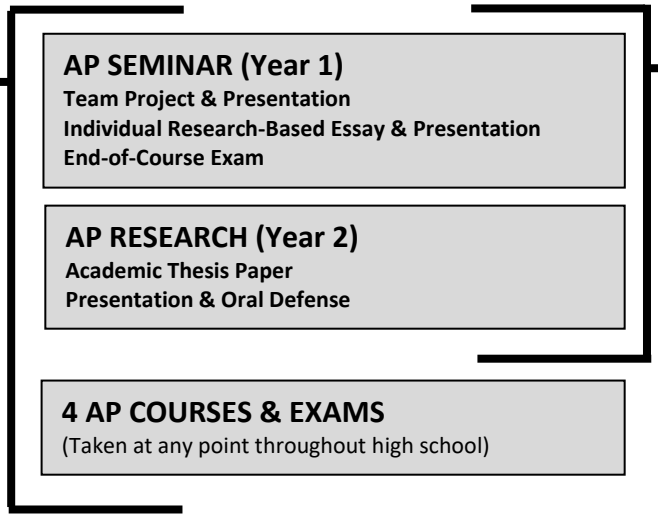
In winter 2018, Science Hill High School was chosen by the College Board to offer the AP Capstone™ program. AP Capstone is an innovative diploma program from the College Board that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges and workplaces. AP Capstone is built on the foundation of two AP courses — AP Seminar and AP Research — and is designed to complement and enhance the in-depth, discipline-specific study experienced in other AP courses. In AP Seminar, students investigate real-world issues from multiple perspectives, gathering and analyzing information from various sources in order to develop credible and valid evidence-based arguments. In AP Research, students cultivate the skills and discipline necessary to conduct independent research in order to produce and defend a scholarly academic paper. AP Seminar may also be taken as a stand-alone option without taking AP Research.

Advanced Placement Capstone Recognitions

Students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing receive the AP Capstone Diploma™. Students who earn scores of 3 or higher in AP Seminar and AP Research but not on four additional AP Exams receive the AP Seminar and Research Certificate™.

AP Capstone Diploma™

Students who earn scores of 3 or higher in both of the AP Capstone courses and on four additional AP Exams of their choosing will receive the AP Capstone Diploma from the College Board.



AP Seminar and Research Certificate™

Students who earn scores of 3 or higher in both of the AP Capstone courses but not on the four additional AP Exams will receive the AP Seminar and Research Certificate, signifying successful performance in those courses.

ADVANCED PLACEMENT SEMINAR | One Credit | Year-Long | Grade 11

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments. AP Seminar may be taken as a stand-alone option without progressing to AP Research.

ADVANCED PLACEMENT RESEARCH | One Credit | Year-Long | Grade 12

AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research based investigation to address a research question. In the AP Research course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of 4000–5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense.

AP COURSES OFFERED AT SCIENCE HILL*			
CAPSTONE	AP Seminar AP Research	ARTS	AP Music Theory AP 2-D Art and Design AP 3-D Art and Design AP Drawing
WORLD LANGUAGES & CULTURES	AP French Language and Culture AP Spanish Language and Culture	HISTORY & SOCIAL SCIENCES	AP European History AP Human Geography AP Macroeconomics AP Microeconomics AP Psychology AP United States Government & Politics AP United States History AP World History
MATH & COMPUTER SCIENCE	AP Calculus AB AP Calculus BC AP Computer Science A AP Computer Science Principles AP Precalculus AP Statistics	SCIENCES	AP Biology AP Chemistry AP Physics 1: Algebra-Based AP Physics 2: Algebra-Based AP Environmental Science
ENGLISH	AP English Language & Composition AP English Literature & Composition		

*All AP course offerings in the school schedule are dependent on yearly student requests.

The Advanced Placement® Program at SHHS

The AP Program offers college-level course work and exams in high school. Research consistently shows that AP students are better prepared for college than students who don't take AP, regardless of their exam score. They're more likely to enroll and stay in college, do well in their classes, and graduate in four years.

AP MYTHS	AP REALITIES
AP courses are for students who always get good grades.	AP courses are for any students who are academically prepared and motivated to take college-level courses.
AP courses are too stressful.	It's no secret that AP courses are challenging, but the support you receive from your classmates and teachers can help you manage the work load.
I don't think I will score high enough on the AP Exam to get college credit.	You don't need to score a 5. Many colleges grant credit and placement based on a 3 or higher on an AP Exam.
Taking AP courses could hurt my GPA.	Taking AP courses shows colleges that you're willing to challenge yourself academically. Plus, AP courses receive an additional 5 percentage points to the grades used to calculate the semester average, and you also will receive a weighted GPA boost.
I can't take AP because no one has recommended me.	If you think you're ready to take an AP course, then you're ready to advocate for yourself — just talk to a teacher or counselor.

What is AP? AP programs:

- Promote educational excellence in high schools.
- Enable willing and academically motivated students to pursue college-level studies with the support of teachers and peers.
- Offer internationally recognized exams.
- Meet high school graduation credit requirements.
- Provide opportunities to take one or multiple courses in the AP program.

Why take AP? AP enables you to:

- Stand out in college admission.
- Receive AP Scholar Awards—academic distinctions that you may cite among your credentials on applications and résumés.
- Receive an AP designated diploma—The AP Capstone Diploma.
- Earn college credit with a qualifying AP exam score.
- Skip introductory college classes.
- Build college skills and confidence.
- Explore potential majors based on your interests.
- Turn subjects you love into fulfilling career paths.

Who should take AP? At SHHS, we believe in:

- Equitable access to our AP programs by giving all willing and academically prepared students the opportunity to participate.
- Elimination of barriers that restrict access to AP for students from ethnic, racial, and socioeconomic groups that have been traditionally underrepresented.
- Reflection of the diversity of our student population in AP courses.
- Access to academically challenging course work in the years before students enroll in AP classes (honors courses), which can prepare students for AP success.
- Commitment to equitable preparation and access so that true equity and excellence can be achieved for all students.

How is AP different from other courses? AP courses will:

- Challenge students to work and participate at a higher level.
- Offer opportunities to explore topics in greater depth through critical thinking, analysis, synthesis, evidence, multiple perspectives, and clear written and verbal communications.
- Set bigger goals for yourself and do things you never thought possible.
- Require more time in and out of the classroom to complete assignments and projects.
- Conclude with a **REQUIRED** College Board AP exam.
    - Most two- and four-year colleges and universities worldwide recognize AP in the admission process and accept successful exam scores for credit, advanced course placement, or both.
    - Each college and university establish their own AP policy and will require school specific exam scores.
    - Please note that some colleges and universities do not grant credit for AP courses regardless of the AP exam score achieved.
- Use the AP grading scale that shall include the addition of 5 percentage points to the grades used to calculate the semester average (Tennessee State Board of Education Policy 3.301).
- Upon completion of the course and the exam, students will receive a weighted GPA for the AP Course. For AP courses, an A = 5, B = 4, C = 3, D = 2, F = 1.

What are the financial benefits? With AP you could:

- Save money on tuition. The average cost of one college class at a 4-year public school is $1250.00.
    - However, an AP course and AP exam at SHHS are FREE.
- Graduate from college sooner than your peers. Students who take five years or more to graduate can spend $21,500 for each additional year in college to cover tuition, fees, living expenses, and transportation.
    - However, students who take AP courses and exams in high school are much more likely to graduate from college in four years instead of five.

Visit the College Board's online resources for more information:

- https://apstudents.collegeboard.org/
    - A website expressly for prospective and current AP students.
- https://bigfuture.collegeboard.org/
    - Step-by-step advice and interactive tools to help students navigate the college planning process and explore majors and careers.
- https://apstudents.collegeboard.org/choosing-courses/by-major-career
    - Match college majors and careers with the AP courses that can help you get there.
- https://apstudents.collegeboard.org/course-index-page
    - Explore AP course content.
- https://apstudents.collegeboard.org/getting-credit-placement/search-policies
  Use this tool to find colleges that offer credit or placement for AP scores.
  For the most up-to-date AP credit policy information, be sure to check the college/university website.
- https://apstudents.collegeboard.org/awards-recognitions
  Find qualifications for the College Board awards that honor students for academic excellence and achievement.

SUGGESTED AP COURSE SEQUENCES

As of 2023-24, students have 29 AP course options. This can be overwhelming for rising freshmen during the four-year planning process as well as for upperclassmen considering taking AP for the first time. Whether you are a student striving to attain an AP Capstone Diploma or a student with an interest in a specific topic of study (such as science), below are OPTIONS to consider as you plan your course selections for the academic year. One of the best ways to work AP courses into your schedule is to take AP courses that fulfill graduation requirements. Talking with your family, teachers, and counselor will help you make the best choice of AP courses to meet your future goals. Another resource for exploring AP courses that are right for you is Map Out Your Journey with AP from College Board. **Remember, any student at any grade may take an AP course if he/she has met the prerequisites (see course description).**

AP Program of Interest	9th Grade*	10th Grade	11th Grade	12th Grade
Capstone Diploma	AP Human Geography	2nd AP Course of choice from any content area	AP Seminar 3rd AP Course of choice from any content area	AP Research 4th AP Course of choice from any content area
STEM	AP Human Geography	AP Science and/or AP Computer Science Principles	AP Science and/or AP Math and/or AP Psychology	AP Math and/or AP Science and/or AP Computer Science A
Humanities	AP Human Geography	AP European History and/or AP World History	AP English and/or AP Psychology and/or AP US History	AP English and/or AP Gov and/or AP Economics
World Language	AP Human Geography	AP European History and/or AP World History	AP Government and/or AP Economics	AP World Language of choice
Arts	AP Human Geography	AP Computer Science Principles	AP Music Theory and/or AP Art and Design	AP English and/or AP Psychology

*** AP Human Geography is an entry level AP course recommended for all 9th graders interested in any AP track. AP Human Geography may also be offered to upperclassmen.**

<table>
<tr><th colspan="4">AP AWARDS RECOGNIZED AT SCIENCE HILL</th></tr>
<tr><td colspan="4">AP SCHOLAR AWARDS</td></tr>
<tr><td>AP SCHOLAR</td><td>Granted to students who receive scores of 3 or higher on three or more AP Exams</td><td>AP SCHOLAR WITH HONOR</td><td>Granted to students who receive an average score of at least 3.25 on all AP Exams taken, and scores of 3 or higher on four or more of these exams</td></tr>
<tr><td>AP SCHOLAR WITH DISTINCTION</td><td>Granted to students who receive an average score of at least 3.5 on all AP Exams taken, and scores of 3 or higher on five or more of these exams</td><td>FOR MORE INFO</td><td>https://apstudents.collegeboard.org/awards-recognitions/ap-scholar-award</td></tr>
<tr><td colspan="4">AP CAPSTONE DIPLOMA & CERTIFICATE
See the “Advanced Placement Capstone” section for details</td></tr>
<tr><td>AP CAPSTONE DIPLOMA</td><td>Granted to students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing</td><td>AP SEMINAR & RESEARCH CERTIFICATE</td><td>Granted to students who earn scores of 3 or higher in both AP Seminar and AP Research</td></tr>
<tr><td>FOR MORE INFO</td><td colspan="3">https://apstudents.collegeboard.org/awards-recognitions/ap-capstone-award</td></tr>
</table>

Early Postsecondary Opportunities (EPSOs)

Early postsecondary opportunities (EPSOs) include a course and/or exam that give students a chance to obtain postsecondary credit while still in high school. Research has shown that students who participate in early postsecondary courses are more likely to enroll and persist in postsecondary environments. Early postsecondary opportunities allow students to:

- Earn postsecondary credits while in high school.
- Become familiar with postsecondary rigor and expectations.
- Develop confidence and skills for success in postsecondary learning.
- Make informed postsecondary and career decisions.
- Decrease the time and cost of completing a certificate or degree.

SHHS offers several types of EPSOs. See the chart below or your counselor for more information.

SHHS EPSOs Early Post-Secondary Opportunities					
	AP ADVANCED PLACEMENT	**DE DUAL ENROLLMENT**	**LDC LOCAL DUAL CREDIT**	**SDC STATEWIDE DUAL CREDIT**	**IC INDUSTRY CERTIFICATION**
DESCRIPTION	College-level high school courses and nationally recognized exams offered in multiple subjects and taught by SH instructors	Postsecondary course taught at the postsecondary institution, online, or at SH	High school course aligned to standards of a local postsecondary institution	High school course aligned to statewide postsecondary standards	Assessment by an independent certifying entity based on standards for knowledge, skills, and competencies
STRUCTURE	Course and exam	Course	Course and exam	Course and exam	Exam
PROVIDER	The College Board	Individual TN Postsecondary Institutions	Individual TN Postsecondary Institutions	Tennessee Department of Education	Industry
STUDENT FEES	None; Exam fees paid by JCS Board of Education	Course tuition, fees, and books; DE Grant for qualifying students	Exam fees	None	Exam fees
HIGH SCHOOL CREDIT AND GRADUATION REQUIREMENTS	AP courses meet graduation requirements and/or electives	DE courses meet graduation requirements and/or electives	LDC course fulfills the same requirements as aligned high school course	SDC course fulfills the same requirements as aligned high school course	IC is a program of study and does not meet graduation requirements
POSTSECONDARY CREDIT DETERMINANT	Score on AP exam	Successful dual enrollment course completion	Score on challenge exam at or above the established cut score	Score on challenge exam at or above the established cut score	Score on industry certification exam
POSTSECONDARY CREDIT AWARDED	Determined by postsecondary institutions	Credit awarded on the postsecondary transcript; Could be transferrable to other postsecondary institutions	Credit accepted at the partnering postsecondary institution	Credit accepted at all TN postsecondary institutions	Determined by postsecondary institutions

Online Courses at SHHS

Science Hill offers online courses to any rising 9th – 12th grade student. Online courses may be used to take one extra class per semester, free up an elective spot in the regular school day schedule, or make-up credit for a failed class. Students complete online courses OUTSIDE THE REGULAR SCHOOL DAY using Canvas, and the course is facilitated by a certified SHHS teacher. Students may receive additional face-to-face support through a student requested appointment or through a teacher required meeting. With school administrator approval, if an online course for first-time credit is not offered at SHHS, we are able to provide a limited number of online course opportunities through our partnership with the Niswonger Foundation for a class access fee of $145 or the current rate for the Niswonger course. Please see a SHHS counselor with questions about the enrollment process, registration deadlines, and procedure/policy for online courses. Give online courses consideration!

How do I know if online courses are for me? To be the most successful in online courses you should be comfortable with:

- Scheduling time outside of the school day to complete the requirements of your online work, even when life gets busy.
- Organizing your work so that you are responsible in meeting deadlines for online assignments.
- Asking questions in Canvas and/or seeking face-to-face support of your teacher when you have concerns or misunderstandings.

How do I register for an online course?

- Print and complete the Online Course Registration Form and return to your counselor.
    - Blank forms are available from your counselor and Main Office.
    - This form will not be approved by your counselor without your parent/guardian signature.
- Pay the $50 course registration fee if applicable.
- Once approved for the online course(s), your counselor will enroll you in the course(s) and notify you that you are enrolled.
- You will receive a welcome email from your online course teacher through your JCS student email account/Canvas for SHHS Online Courses or from your Niswonger online course instructor.
    - The student is responsible for monitoring your JCS student email/Canvas for communications from the online teacher.

What are the online course procedures/policies I should know?

- Cost is $50 per course.
- Students may take no more than:
    - Two online courses in the summer term.
    - One online course in the fall term.
- From summer through fall, students may take no more than THREE total online courses.
- Consideration of any exception, to the online course procedures/policies may be directed to the school principal, Dr. Carter, or his designee.

ONLINE COURSES OFFERED AT SCIENCE HILL*

Student athletes should consult with Mr. Turner, SHHS Athletic Director, about eligibility of online courses with the NCAA. Meeting the academic requirements for athletic eligibility is the responsibility of the student.

Computer Science **1 credit** **Grades 9-12**	Summer 2025	Fall 2025
Economics **0.5 credit** **Grades 10-12**	Summer 2025	Fall 2025 Term 1
General Psychology **1 credit** **Grades 10-12**	Summer 2025	Fall 2025
Lifetime Wellness **1.0 credit** **Grades 9-12**	Summer 2025	Fall 2025
Personal Finance **0.5 credit** **Grades 10-12**	Summer 2025	Fall 2025 Term 1
Personal Fitness **0.5 credit** **Grades 10-12**	Summer 2025	Fall 2025 Term 2
Sociology **1 credit** **Grades 10-12**	Summer 2025	Fall 2025
Statistics **1 credit** **Grades 10-12**	Summer 2025	Fall 2025
U.S. Government & Civics **0.5 credit** **Grades 10-12**	Summer 2025	Fall 2025 Term 2

***All online course offerings are dependent on number of student requests**

<table>
<tr><th colspan="5">ONLINE COURSES—IMPORTANT DATES</th></tr>
<tr><th colspan="5">1.0 CREDIT COURSES</th></tr>
<tr><td rowspan="4">SUMMER 2025</td><td>REGISTRATION DEADLINE
4/30/25</td><td rowspan="4">FALL 2025</td><td colspan="2">REGISTRATION DEADLINE
4/30/25</td></tr>
<tr><td>COURSE START DATE
6/2/25</td><td colspan="2">COURSE START DATE
8/11/25</td></tr>
<tr><td>DROP WITHOUT PENALTY
6/9/25</td><td colspan="2">DROP WITHOUT PENALTY
8/18/25</td></tr>
<tr><td>COURSE END DATE
6/30/25</td><td colspan="2">COURSE END DATE
12/5/25</td></tr>
<tr><th colspan="5">0.5 CREDIT COURSES</th></tr>
<tr><td rowspan="5">SUMMER 2025</td><td rowspan="2">REGISTRATION DEADLINE
4/30/25</td><td rowspan="5">FALL 2025 (2 Terms)</td><td>TERM ONE</td><td>TERM TWO</td></tr>
<tr><td>REGISTRATION DEADLINE
4/30/25</td><td>REGISTRATION DEADLINE
4/30/25</td></tr>
<tr><td>COURSE START DATE
6/2/25</td><td>COURSE START DATE
8/11/25</td><td>COURSE START DATE
10/13/25</td></tr>
<tr><td>DROP WITHOUT PENALTY
6/9/25</td><td>DROP WITHOUT PENALTY
8/18/25</td><td>DROP WITHOUT PENALTY
10/20/25</td></tr>
<tr><td>COURSE END DATE
6/30/25</td><td>COURSE END DATE
10/3/25</td><td>COURSE END DATE
12/5/25</td></tr>
</table>

Dual Enrollment

Opportunities exist for high achieving students to earn both college credit and high school credit while still in high school. Students that meet ACT and GPA requirements (which vary by college) may be eligible to enroll in college courses at a discounted tuition rate.

All the area colleges offer some type of dual enrollment classes, but the individual requirements will vary. The dual enrollment process will proceed as follows:

- Parent/Guardians must complete a dual enrollment packet. The online packet can be found on the counselor website or under the modules section of each counselor's Canvas page.
- Students will see their counselor for any additional paperwork and steps that needs to be completed. Requirements will vary by college.
- Students must apply to the college they plan to take dual enrollment courses with and complete the Dual Enrollment Grant Application.
- Once all paperwork and applications are submitted to the college or university, the student will be accepted as a dual enrollment student, and they will be able to register for the college class they have chosen with their counselor.
- Once enrolled, **students must email a copy of the Concise Student Schedule to their counselor.**
- **Failure to provide the Concise Student Schedule will result in the student being placed in an alternate class at Science Hill.**

High school credit will be awarded for the successful completion of work from an accredited college or university per the following: 3 hours of college credit shall equate to 1 high school credit. Less than 3 hours of college credit will equate to .5 high school credit.

Academic Dual Enrollment (DE) Eligibility Requirements:

- Student must have junior or senior standing in high school.
- ETSU: Students must have an ACT minimum composite of 19 with no sub-score below 19 or equivalent SAT and a 3.0 cumulative GPA. Students with a cumulative GPA of 3.4 may use a test waiver, if necessary, in place of the 19.
- Milligan: Students must have a 3.0 cumulative GPA.
- Northeast State: Students enrolling in general education courses or in courses requiring English or reading as prerequisites must have an ACT sub-score of 18 in English and 19 reading. Students enrolling in selected math courses must have a minimum ACT sub-score of 19. Students completing the SAT must have a SAT composite score of 920 with minimum scores of 460 in math and 460 verbal.
- See College website for more information about dual credit requirements – vary by college.

Career Technical Education (CTE) Dual Enrollment Opportunities:

- CTE-focused students now have the opportunity to dual enroll in various technical programs such as automotive, welding, electrical, collision repair, construction, HVAC, machine tool, millwright, and many other programs. CTE DE opportunities now exist at TCAT Elizabethton, TCAT Boone's Creek, and Northeast State Community College.
- Students must be a junior or senior to participate in the CTE DE program and must maintain a 2.0 college GPA in order to remain eligible. Students may qualify for as many as 10 free CTE Dual Enrollment courses.

Dual Enrollment Grant Program

Students may be eligible for the Dual Enrollment Grant. For eligibility requirements, rules, award amounts and application deadline go to https://www.collegefortn.org/dualenrollment/ for more information.

Parchment Transcript Services

Parchment is used for the secure online transmission of student transcripts to colleges, universities, NCAA Clearinghouse, dual enrollment classes, etc. All students are required to create an account at Parchment.com. Students will access their account to request transcripts and monitor the status of their requests. Allow up to one week for processing of each request. Refer to the Student Handbook, https://parchment.my.site.com/s/?language=en_US, your counselor or the registrar for additional information and assistance.

Schedule Change Policy

A great deal of time is invested in preparing the master schedule. Course offerings are selected to meet student interest and state requirements. Sometimes course requests exceed the number of sections possible, therefore, not everyone will receive the classes they choose. Students must select alternate classes. Alternate courses are considered first before placing students in non-requested courses. Please take your time and make wise choices while picking your course requests. **You will be held to the decisions you make during the registration process.** Students are expected to follow the schedule for classes which will be generated from the courses chosen during registration. This includes class levels such as AP or Honors. Make sure you meet the prerequisite course work and the academic grade recommendations before choosing a higher-level course. Students may **not** request teachers. **Parents, registration in the spring is your time to have input into what courses your student selects.**

Schedule change requests for the entire school year will be accepted through the first 5 days of school only. All schedule change requests must be submitted on the schedule change request form. Counselors will consider requests for schedule changes only for the following reasons:

1. A student has failed the preceding class in the course sequence.
2. A student does not meet the required prerequisite or co-requisite.
3. Summer school attendance results in a need for a new course request.
4. A senior not registered for a required course for graduation.
5. Does not have a class every period.
6. An Administrator deems the move beneficial for balancing courses or for balancing student schedules.
7. Student wishes to try a more challenging course in English, math, science or social studies.
8. Teacher recommendation.

The following are not acceptable for requesting a course change:

1. Teacher preference.
2. Fear of low grade or course difficulty (AP/Honors courses).
3. Summer reading or packet not completed.
4. Changed mind.

Students who would like to change course requests will have until the last day of school to do so before summer break. Students will need to meet with their counselor before they leave for summer break to make the changes to their requests. Students should look at their course requests on their gradebook portal to make sure they were signed up for the correct classes**.** Once school breaks for summer, students will be held to their requests.

Alternate Courses

We recommend all students select 3 alternates during registration. Often open seats in popular classes are extremely scarce. Because of this, the below classes cannot be selected as alternate courses due to typical over enrollment.

Principles of Manufacturing	Maintenance & Light Repair 1	Ceramics
Culinary Arts 1		

Preparing for Class Registration

Rising freshmen must participate in a 4-year plan meeting. In February, information will be distributed to 8th grade students regarding an upcoming parent meeting and 4-year plans. Both parents and incoming 9th graders are highly encouraged to attend the parent meeting to understand graduation requirements and school information. It is advisable for parents and students to examine the Program of Studies prior to attending their 4-year plan meeting. Students who do not complete a 4-year plan meeting will have their 9th grade classes selected for them.

Rising sophomores, juniors, and seniors will complete their class registration during February and March. Students will receive registration materials at school and are expected to discuss and review these documents with their parents or guardians. The registration documents will include a course list sheet, a graduation status report with counselor recommendations, and a current transcript.

Important to remember…

Selecting courses for next year should be a thoughtful process. There are some important things to keep in mind:

- Choose courses that keep you on track for meeting graduation requirements.
- Remember you need to balance homework time with sports, extracurricular activities, and personal time with friends and family.
- Look at the Program of Studies online. Read the course descriptions to find offerings that fit your needs or meet your interests.
- Talk with your parents/guardians and show them the courses you plan to take. If needed, talk with your counselor to ask questions or get information about courses, college requirements, etc.
- Think about and select alternate courses to take in case any of your main choices are full. Students need to select 3 alternate courses and number them 1, 2, 3 when finalizing requests with counselor.
- When selecting high level classes, remember there may be summer work associated with these classes. Be sure to get your reading list, Canvas work, and/or packets before leaving for summer break.
- You are required to take the AP exam in the spring if you request an AP course.

Advancing Through Sequential Courses

Many of the courses offered at SHHS have a co-requisite or prerequisite. These are courses that must be taken at the same time or before the next sequential course. Please read the course descriptions carefully when selecting your classes.

English Recommended Path*

ENGISH: 4 CREDITS REQUIRED FOR GRADUATION

GRADE 9	GRADE 10	GRADE 11	GRADE 12
English 1 or English 1 Honors	English 2 or English 2 Honors	English 3 English 3 & AP Seminar AP English Lang & AP Seminar AP English Language AP English Literature	English 4 AP English Lang AP English Lit AP Research SDC Speech & Communication Dual Enrollment

Math Recommended Path*

MATH: 4 CREDITS REQUIRED FOR GRADUATION

GRADE 9	GRADE 10	GRADE 11	GRADE 12
Algebra 1A & 1B	Geometry	Algebra 2	*All of the following meet 4th Math grad requirement*: AP Calculus AB AP Calculus BC AP Precalculus AP Statistics Adv Algebra & Trigonometry Math Reasoning Statistics
Algebra 1 Honors	Geometry (Reg or H) &/OR Algebra 2 (Reg or H)	Algebra 2 (Reg or H) **OR** Any math listed under Grade 12	
Geometry Honors	Algebra 2 (Reg or H)	*Required:* Any math listed under Grade 12	
Geometry Honors **&** Algebra 2 Honors	Adv Algebra & Trigonometry & AP Precalculus **OR** Adv Algebra & Trigonometry H & AP Precalculus BC	*Required:* Any math listed under Grade 12	

*Refer to page 5 for Allowable Substitutions list

Science Recommended Path*

SCIENCE: 3 CREDITS REQUIRED FOR GRADUATION

GRADE 9	GRADE 10	GRADE 11	GRADE 12
Biology	Physical Science	Chemistry (Reg or H) **OR** Physics	*Third lab sciences taken after completing Biology & Chemistry/Physics*: AP Biology AP Chemistry AP Computer Sci A AP Computer Sci Principles AP Environmental Sci AP Physics I AP Physics II Biology 2 H Chemistry 2 H Earth & Space Science Human Anatomy & Phys
Biology Honors	Chemistry (Reg or H) **OR** Physics	*Required*: Any science listed under Grade 12	
Biology H **&** Chemistry H	Bio 2 H & AP Biology **OR** Chem 2 H & AP Chem **OR** AP Physics I & II	*For Additional credits*: Any lab science listed under Grade 12	

Social Studies Recommended Path*

SOCIAL STUDIES: 3 CREDITS REQUIRED FOR GRADUATION

GRADE 9	GRADE 10	GRADE 11	GRADE 12
World History & Geography **OR** AP Human Geography		U.S. History **OR** AP U.S. History & Geography	Government & Economics **OR** AP U.S. Government & AP Economics
	World History & Geography **OR** AP Human Geography **OR** AP European History **OR** AP World History	U.S. History **OR** AP U.S. History & Geography	Government & Economics **OR** AP U.S. Government & AP Economics

**Refer to page 5 for Allowable Substitutions list*

CAREER CLUSTER FOCUS AREAS

ADVANCED MANUFACTURING

Mechatronics – Principles of Manufacturing, Digital Electronics, Robotics, Work Based Learning: Mechatronics Career Practicum

Welding – Principles of Manufacturing, Welding I, Welding II, Work Based Learning: Welding Career Practicum

AGRICULTURAL, FOOD, AND NATURAL RESOURCES

Horticulture Science – Agriscience, Principles of Plant Science & Hydroculture, SDC Intro to Plant Science, Landscaping and Turf Science, Work Based Learning: Horticulture Science

ARCHITECTURE & CONSTRUCTION

Residential & Commercial Construction – Fundamentals of Construction, Residential & Commercial Construction I, Residential & Commercial Construction II, Construction Practicum, Work Based Learning: Residential & Commercial Construction Career Practicum

Architectural & Engineering Design – Architectural & Engineering Design I, Architectural & Engineering Design II, Architectural & Engineering Design III, Work Based Learning: Architectural & Engineering Design Career Practicum

Mechanical, Electrical, & Plumbing (MEP) Systems – Fundamentals of Construction, MEP Systems, Electrical Systems, Construction Practicum, Work Based Learning: MEP Career Practicum

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS

Audio/Visual Production – AV Production I, AV Production II, AV Production III, Applied Arts Practicum, Work Based Learning: A/V Production Career Practicum

BUSINESS MANAGEMENT & ADMINISTRATION

Office Management – Principles of Office Applications, Business Communications, Business Management, Work Based Learning: Office Management Career Practicum

EDUCATION & TRAINING

Teaching as a Profession K-12 – Introduction to Teaching as a Profession, Teaching as a Profession I, Teaching as a Profession II, Teaching as a Profession Practicum, Work Based Learning: Teaching as a Profession Career Practicum

HEALTH SCIENCE

Emergency Services – Health Science Edu, Medical Therapeutics, Anatomy and Physiology, Dual Enrollment Emergency Medical Services

Nursing Services – Health Science Edu, Medical Therapeutics, Anatomy and Physiology, Nursing Education Honors

Therapeutic Services – Health Science Education, Medical Therapeutics, Anatomy and Physiology or Medical Therapeutics, Pharmacological Science Honors or Clinical Internship Honors

Sports and Human Performance – Health Science Education, Rehabilitation Careers, Anatomy and Physiology, Clinical Internship Honors

HOSPITALITY AND TOURISM

Culinary Arts - Culinary Arts I, Culinary Arts II, Culinary Arts III, Culinary IV, Work Based Learning: Culinary Arts Career Practicum

HUMAN SERVICES

Human and Social Sciences – Intro to Human Studies, Lifespan Development, Family Studies, Work Based Learning: Human and Social Sciences Career Practicum

Cosmetology - Principles of Cosmetology, Design Principles of Cosmetology, Chemistry of Cosmetology, Work Based Learning: Cosmetology Career Practicum

INFORMATION TECHNOLOGY

Cybersecurity – Computer Science Foundations, Cybersecurity I, Cybersecurity II

LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY

Criminal Justice & Corrections Services – Criminal Justice I, Criminal Justice II, Criminal Justice III, Work Based Learning: Criminal Justice and Correction Services Career Practicum

MARKETING

Marketing Management – Intro to Business & Marketing, Marketing I, Advertising and Public Relations, Work Based Learning: Marketing Management Career Practicum

STEM

Technology –Principles of Engineering & Technology, Digital Electronics, Robotics & Automated Systems, Work Based Learning: Technology Career Practicum

TRANSPORTATION, DISTRIBUTION, & LOGISTICS

Automotive Maintenance and Light Repair – Maintenance and Light Repair I, Maintenance and Light Repair II, Maintenance and Light Repair III, Maintenance and Light Repair IV, Work Based Learning: Maintenance and Light Repair Career Practicum

English Department

To satisfy graduation requirements, each student must earn four credits of English: English 1, English 2, English 3, and English 4.

ENGLISH 1

One Semester | **1 credit** | **EOC: YES** | **Grade 9**

English 1 addresses four strands of literacy: reading (both literary and informational texts), writing, listening and speaking, and language. Students read a variety of fiction and nonfiction books, short stories, poetry, drama, and informational texts. Writing involves the modes of narrative, informative/explanatory, and argument with an emphasis on providing evidence to support a claim. Students have regular opportunities to conduct both limited and extended research and to share their findings in a variety of ways, including technology-based presentations, whole and small group discussions, and written products. This course continues to develop language knowledge and skills, enabling students to appropriately write and speak to the purpose and audience.

ENGLISH 1 HONORS

One Semester | **1 credit** | **EOC: YES** | **Grade 9**

Recommendation: B in 8th grade English

Students in English 1 Honors have demonstrated above grade level skills in reading and writing and an ability to work independently and collaboratively. As in English 1, students read a variety of increasingly complex tests and write in various modes, with the additional expectation of extended reading, writing, and research. Students must successfully complete at least one or more extended reading and writing assignments related to each unit of content.

ENGLISH 2

One Semester | **1 credit** | **EOC: YES** | **Grade 10**

Prerequisite: English 1/Honors

English 2 builds upon the skills developed in English 1 and continues to address four strands of literacy: reading (both literary and informational texts), writing, listening and speaking, and language. Students complete a survey of World Literature, including a variety of fiction and nonfiction books, short stories, poetry, drama, and informational texts. Writing involves the modes of narrative, informative/explanatory, and argument with an emphasis on providing evidence to support a claim while using increasingly sophisticated structures. Students have regular opportunities to conduct both limited and extended research and to share their findings in a variety of ways, including technology-based presentations, whole and small group discussions, and written products. This course continues to develop language knowledge and skills, enabling students to appropriately write and speak to the purpose and audience.

ENGLISH 2 HONORS

One Semester | **1 credit** | **EOC: YES** | **Grade 10**

English 1/Honors with a recommended minimum grade of B or Teacher Recommendation

Students in English 2 Honors have demonstrated above grade level skills in reading and writing and an ability to work independently and collaboratively. As in English 2, students read a variety of increasingly complex texts and write in a variety of modes, with the additional expectation of extended reading, writing, and research. Students must successfully complete at least one or more extended reading and writing assignments related to each unit of content. Students are expected to demonstrate mastery of grammar and language mechanics in both writing and speaking by the end of the year.

ENGLISH 3

One Semester **1 credit** **EOC: NO** **Grade 11**
Prerequisite: English 2/Honors

English 3 continues to develop skills in the four strands of reading, writing, listening and speaking, and language through a survey of American Literature. Students are expected to read and analyze complex expository works of literary nonfiction, as well as various genres of American literature, in order to produce ample evidence to support inferences. Students will determine themes across multiple texts and express their thinking in writing and speaking supported by ample and relevant evidence from the texts. Writing involves the modes of narrative, informative/explanatory, and argument with an emphasis on the analysis of text, including research with appropriate citations. Writing will also focus on revising for specific purposes and audiences and editing to demonstrate command of language and mechanics.

ADVANCED PLACEMENT SEMINAR

One Year **1 credit** **EPSO** **EOC: NO** **Grade 11**
AP Seminar will be paired with AP or regular English

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

ADVANCED PLACEMENT ENGLISH LANGUAGE & COMPOSITION

One Semester **1 credit** **ESPO** **EOC: NO** **Grade 11-12**
Prerequisite: English 2/Honors; summer reading required

The AP English Language and Composition course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods.
Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.

ADVANCED PLACEMENT ENGLISH LITERATURE & COMPOSITION

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 11-12**
Prerequisite: English 2/ Honors; summer reading required

The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works.
Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.

ADVANCED PLACEMENT RESEARCH

One Year | **1 credit** | **EPSO** | **EOC: NO** | **Grade 12**

AP Research can be paired with AP English

AP Research enables students to investigate a personal academic topic through a year-long research project. Building on skills from the AP Seminar, students learn research methodology, ethical practices, and information analysis. They document their development in a portfolio and complete a 4000–5000 word academic paper, alongside a performance or exhibition and an oral defense.

ENGLISH 4

One Semester | **1 credit** | **EOC: NO** | **Grade 12**

Prerequisite: English 3 or AP English Language & Composition or AP English Literature & Composition

English 4 continues to develop and refine skills in the four strands of reading, writing, listening and speaking, and language through a survey of British Literature. Students are expected to read and analyze complex expository works of literary nonfiction, as well as various genres of British literature, in order to produce ample evidence to support inferences. Students will determine themes across multiple texts and express their thinking in writing and speaking supported by ample and relevant evidence from the texts.

DUAL ENROLLMENT ENGLISH 1010: FOUNDATIONS IN WRITING @ SHHS

One Semester | **1 credit** | **EPSO** | **EOC: NO** | **Grade 12**

Required: Must meet ETSU eligibility requirements

College level writing course with focus on solid, comprehensive paragraphs; and development of clear, grammatically correct expository prose and essays based on close readings of various texts. This entry-level writing course will benefit students majoring in any discipline. Students will be able to earn 3 college credits from ETSU with successful completion. This course will count as the English 12 requirement for graduation. See counselor for further details.

DUAL ENROLLMENT ENGLISH 1020: WRITTEN COMMUNICATION/CRITICAL THINKING @ SHHS

One Semester | **1 credit** | **EPSO** | **EOC: NO** | **Grade 12**

Required: Grade of C or above in ENGL 1010 or equivalent with appropriate GPA

Writing essays based on critical analyses of various literary texts with emphasis on sound argumentative techniques. Course requires documented research paper. Students must earn a grade of "C" or above to pass this course. Students will be able to earn 3 college credits from ETSU with successful completion. See counselor for further details.

ENGLISH LANGUAGE DEVELOPMENT (ELD) 9, 10, 11, 12

One Semester | **1 credit each semester** | **EOC: NO** | **Grade 9-12**

These classes address the needs of students whose native language is not English. Any two ELD classes can count as required English credits.

English Elective Courses

ACT SUCCESS

One Semester **1/2 credit** **EOC: NO** **Grade 11-12**

Pairs with Literature Through Film; not approved course for NCAA

ACT Success course is designed to assist students in understanding what the ACT is, why it is important for their postsecondary readiness, and how to interpret their progress/results. Students will prepare for the ACT exam through instruction, practice, and familiarity with the structure and format of the ACT exam; and identifying and using best practices for maximizing one's score such as "test tips", strategies for dealing with test anxiety, and the benefits of retaking the exam.

CREATIVE WRITING

One Semester **1 credit** **EOC: NO** **Grade 9-12**

This class introduces students to creative writing techniques, covering fiction, poetry, and non-fiction. Through readings and media, students will explore different writing styles and learn from successful writers. Class discussions will focus on the writing process, assigned materials, and student work.

CREATIVE WRITING 2

One Semester **1 credit** **EOC: NO** **Grade 10-12**

Prerequisite: Creative Writing 1

Students will explore creative writing in fiction and nonfiction, focusing on poetry, short stories, and screenwriting. They will analyze and model works from great authors to enhance their own writing, culminating in a substantial portfolio of original work.

FANTASY LITERATURE AND COMPOSITION

One Semester **1 credit** **EOC: NO** **Grade 9-12**

This elective will explore a wide range of Fantasy Literature, starting with key classic, dark, and urban fantasy works. It will focus on fantasy archetypes, world-building, and techniques for developing character and setting, providing a comprehensive survey of the genre.

LITERATURE THROUGH FILM

One Semester **1/2 credit** **EOC: NO** **Grade 11-12**

Pairs with ACT Success; permission slip required

An elective course in which students will learn how literature can be interpreted visually, as many films and TV shows are adapted from written works. Students will develop the skills necessary to examine how the author's/director's choices affect the reader's/viewer's interpretation of a work. Genres include classics, fantasy, mystery, historical, western, young adult, and youth.

STATE DUAL CREDIT SPEECH & COMMUNICATION

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 11-12**

Prerequisite: English 1 & 2; counts as elective if taken junior year or can substitute for English 4 graduation requirement if taken senior year.

In addition to gaining confidence in public speaking situations, students in this class will learn about many communication scenarios, including interpersonal communication, intercultural communication, listening, negotiating, and resolving conflict. Specifically geared to help students overcome public speaking anxiety, this class combines lecture and activities to provide a rich and positive learning environment for everyone.

WATAUGAN 1 & 2 (JOURNALISM)

One Semester **1 credit each semester** **EOC: NO** **Grade 9-12**

Application required; may be taken multiple times. Students must take both semesters

This class produces the yearbook. Students will learn layout design, copywriting, photography, graphics, and advertising sales. Production deadlines may require work beyond the school day.

Math Department

IMPORTANT THINGS TO REMEMBER ABOUT SELECTING A MATH COURSE

- **Any 9th grade student who took Algebra 1 in middle school may start in Geometry or Geometry Honors.**
- **All other 9th grade students will be enrolled in either Algebra 1A in the fall and Algebra 1B in the spring or in Honors Algebra for a semester.**
- **Any 9th grade student who has a goal of taking AP Calculus AB or BC must take Geometry and Algebra 2 by their sophomore year (for Calculus BC the student needs to be in the honors sequence of courses).**
- **Any student who takes regular Algebra 2 and wishes to take Advanced Algebra & Trigonometry Honors and AP Precalculus BC must have a teacher recommendation from their Algebra 2 teacher in order to take the honors/BC course rather than the regular course.**
- **AP Calculus AB can be taken after completing Advanced Algebra & Trigonometry with a grade of A or B with a recommendation of also taking AP Precalculus.**
- **AP Calculus AB and AP Calculus BC are two distinct courses, both of which are yearlong.**

To satisfy graduation requirements, each student must earn four credits of Math and be enrolled in a math course for at least 3 years of high school: Algebra 1, Geometry, Algebra 2 and one additional math.

ALGEBRA 1A

One Semester | **1 credit** | **EOC: NO** | **Grade 9**

Elective Credit; does not satisfy Algebra 1 graduation requirement.

This course is the foundation of algebra. Essential topics include solving, graphing, and writing linear equations and inequalities. Other important topics include solving and graphing absolute value equations, absolute value inequalities and linear systems.

ALGEBRA 1A (IEP ONLY)

Two Semesters | **1 credit each semester** | **Grade 9**

This course is designed to introduce Algebra 1 and to improve Algebra skills while preparing for EOC exams.

ALGEBRA 1B

One Semester | **1 credit** | **EOC: YES** | **Grade 9-10**

Prerequisite: Algebra 1A; satisfies Algebra 1 credit for graduation.

This course will continue the study of algebra with an in-depth look at properties of exponents, exponential functions, and quadratic functions. Other topics of interest include radical expressions, rational expressions, and general statistics.

ALGEBRA 1B (IEP ONLY)

Two Semesters **1 credit each semester** **Grade 10**

This course is designed to continue building Algebra 1 concepts and to improve Algebra skills while preparing for EOC exams.

ALGEBRA 1 HONORS

One Semester **1 credit** **EOC: YES** **Grade 9**

Required: An A in 8th grade math or passing grade on Algebra Readiness Test; required course for graduation

This course will cover the same topics as the regular Algebra 1A & 1B courses but in one semester. A greater emphasis will be placed on concept development and completing investigative tasks. This a fast-paced course.

GEOMETRY

One Semester **1 credit** **EOC: YES** **Grade 10-11**

Prerequisite: Algebra 1B; Geometry is a required course for graduation

In this course, students will strengthen their logical and mathematical reasoning as they study the formal structure of geometric concepts. In addition, students will develop problem-solving skills through applying geometric concepts in real-world situations.

GEOMETRY (IEP ONLY)

One Semester **1 credit** **Grade 11**

This course is designed to introduce Geometry and to improve Algebra & Geometry skills.

GEOMETRY HONORS

One Semester **1 credit** **EOC: YES** **Grade 9-11**

Prerequisite: Recommended minimum grade of B in Algebra 1 with teacher recommendation; Geometry is a required course for graduation

This course will cover topics similar to those in Geometry with a greater emphasis on the subject as an axiomatic system. A much greater emphasis will be placed on the development of mathematical proofs and the completion of investigative tasks.

ALGEBRA 2

One Semester **1 credit** **EOC: YES** **Grade 10-12**

Prerequisite: Geometry; Algebra 2 is a required course for graduation

Algebra 2 further expands a student's understanding of functions and function types developed in Algebra 1. In particular, cubic, exponential, inverse, logarithmic, piecewise, and radical functions are studied. Students explore techniques for representing and solving systems of equations, including graphically, algebraically, and through the use of matrices. In addition, Algebra 2 includes a more in depth focus on using statistics to understand data and make decisions.

ALGEBRA 2 (IEP ONLY)

One Semester **1 credit** **EOC: YES** **Grade 12**

Prerequisite: Geometry; Algebra 2 is a required course for graduation

This course expands on the concepts of functions and statistics introduced in Algebra 1. Students will develop skills for displaying and solving functions using algebra techniques, visual representations and matrices. This course is offered to students who qualify based on their IEP goals.

ALGEBRA 2 HONORS

One Semester **1 credit** **EOC: YES** **Grade 10-12**

Prerequisite: Recommended minimum B in Algebra 1 and/or Geometry with teacher recommendation; Algebra 2 is a required course for graduation.

Algebra 2 Honors covers the same topics as Algebra 2 in greater depth, but will also include instruction on higher degree polynomial functions and the complex number system. Students will also complete honor level projects as part of the coursework.

ADVANCED PLACEMENT STATISTICS

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 10-12**

Prerequisite: Algebra 2 with a recommended grade of B or better or teacher recommendation

The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding

MATHEMATICAL REASONING FOR DECISION MAKING

One Semester **1 credit** **EOC: NO** **Grade 11-12**

Prerequisite: Algebra 2

Applications and modeling using mathematics are the primary foci of this course. Throughout the course, students explore mathematical content in the context of applications to the real-world. Topics will build upon previous knowledge requiring students to reason, solve, and represent mathematical concepts in multiple ways to encourage the use of math to answer problems students will encounter in life. This course is best intended for students who are planning to attend a College of Applied Technology, military service, or enter the workforce immediately following graduation.

STATISTICS

One Semester **1 credit** **EOC: NO** **Grade 11-12**

Prerequisite: Algebra 2

This course develops techniques for organizing data, using graphs and numerical measurements. Probability is used with statistical tests to make statistical inferences

ADVANCED ALGEBRA & TRIGONOMETRY

One Semester **1 credit** **EOC: NO** **Grade 11-12**

Prerequisite: Algebra 2 with recommended grade of C or better or teacher recommendation

This course will begin building on the concepts of functions introduced in Algebra 2, including absolute value, greatest integer, polynomial, rational, exponential, and logarithmic functions. In addition, students will begin their study of trigonometry including the Unit Circle, the graphs of the trigonometric and inverse trigonometric functions, basic trigonometric identities and application of these identities to solve equations and inequalities, and triangle trigonometry.

ADVANCED ALGEBRA & TRIGONOMETRY HONORS

One Semester **1 credit** **EOC: NO** **Grade 11-12**

Prerequisite: Algebra 2 Honors with minimum grade of B or teacher recommendation

This course covers similar content to Advanced Algebra & Trigonometry but emphasizes concept development and has a faster learning pace.

ADVANCED PLACEMENT PRECALCULUS

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 11-12**
Prerequisite: Adv Alg & Trig or Adv Alg & Trig Honors

AP Precalculus is a continuation of the curriculum covered in **Adv Alg & Trig**. The class will focus on maintaining and further developing the ideas taught previously while simultaneously introducing new topics. These topics will include Polar Functions, Parametric Functions, Vectors, Matrices, and Sequences and Series. An introduction of early Calculus topics such as Limits and Derivatives will be explored if time permits. Students will develop AP level problem solving skills and writing throughout the course.

ADVANCED PLACEMENT PRECALCULUS BC

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 11-12**
Prerequisite: Adv Alg & Trig Honors or teacher recommendation

In addition to the material covered in AP Precalculus, this course will aim at a more rigorous understanding of the concepts. Students will derive important theorems in the curriculum and be held to a higher standard of understanding in order to prepare students for AP Calculus BC.

ADVANCED PLACEMENT CALCULUS AB

Two Semesters **1 credit each** **EPSO** **EOC: NO** **Grade 12**
Prerequisite: Adv Alg & Trig with a recommendation of also taking AP Precalculus

AP Calculus AB is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The AP course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

ADVANCED PLACEMENT CALCULUS BC

Two Semesters **1 credit each** **EPSO** **EOC: NO** **Grade 12**
Prerequisite: AP Precalculus BC

AP Calculus BC is roughly equivalent to both first and second semester college calculus courses. It extends the content learned in AB to different types of equations (polar, parametric, vector-valued) and new topics (such as Euler's method, integration by parts, partial fraction decomposition, and improper integrals), and introduces the topic of sequences and series. The AP course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

Science Department

To satisfy graduation requirements, each student must earn three credits of science: Biology 1, Chemistry 1 or Physics, plus one more lab science.

ECOLOGY (IEP ONLY)

One Semester **1 credit** **EOC: NO** **Grade 9**

Ecology is the study of interactions between organisms and their environment. This course provides students with an overview of the relationship between humans and their environment as well as organisms and their environment. Specifically, this course will introduce students to the environmental problems, loss of biological diversity and energy usage. We also introduce students to interdependence of organisms, the relationship of matter, energy and organization in living systems, ecological conditions, and biological change.

BIOLOGY 1

One Semester **1 credit** **EOC: YES** **Grade 9-12**
Required course for graduation

This course is a laboratory science course that investigates the relationship between the structure and function of molecules, organisms, and systems. Students discover biological concepts through inquiry approach. Standards for Scientific Inquiry, Technology and Engineering, and Mathematics are taught in the context of the content standards: From Molecules to Organisms: Structures and Processes, Ecosystems, Heredity, and Biological Change. Learning methods include online interaction, class and online discussions, labs, simulations, demonstrations, unit tests and departmental benchmark exams. This course prepares students for the End of Course exam.

BIOLOGY HONORS

One Semester **1 credit** **EOC: YES** **Grade 9-10**
Required course for graduation

This course is a laboratory science course that investigates the relationship between the structure and function of molecules, organisms, and systems. Students discover biological concepts through inquiry approach. Standards for Scientific Inquiry, Technology and Engineering, and Mathematics are taught in the context of the content standards: From Molecules to Organisms: Structures and Processes, Heredity, Ecosystems, and Biological Change. Learning methods include online interaction, class and online discussions, labs, simulations, demonstrations, unit tests and departmental benchmark exams. This course prepares students for the End of Course exam. Students enrolling in the course should have strong academic standing and possess good study and homework completion habits, as well as the ability to work independently. This is a fast-paced, challenging course.

CHEMISTRY 1

One Semester **1 credit** **EOC: NO** **Grade 9-12**
Prerequisite: Biology 1; completed or concurrently taking Algebra 1; Chemistry or Physics is a required course for graduation.

Based on the seven core concepts (patterns; cause and effect; scale, proportion, and quantity; systems and system models; energy and matter; structure and function; and, stability and change). Topics covered include classification of matter, atomic theory, electron arrangement, chemical bonding, formulas and IUPAC nomenclature, chemical equations, stoichiometry, properties of gases, liquids, and solids, and nuclear chemistry. These topics and core concepts will be explored through laboratory techniques, manipulation of chemical quantities and advanced problem-solving techniques. Scientific and engineering practices are embedded as a means to learn about specific topics identified for the course. Engaging in these practices will help students become scientifically literate and astute consumers of scientific information.

CHEMISTRY HONORS

One Semester **1 credit** **EOC: NO** **Grade 9-12**

Prerequisite: Biology 1 or Biology Honors; completed or concurrently taking Algebra 1A & 1B; regular or honors Chemistry or Physics is a required course for graduation.

Based on the seven core concepts (patterns; cause and effect; scale, proportion, and quantity; systems and system models; energy and matter; structure and function; and, stability and change. Topics covered include classification of matter, atomic theory, electron arrangement, chemical bonding, formulas and IUPAC nomenclature, chemical equations, stoichiometry, properties of gases, liquids, and solids, and nuclear chemistry. These topics and core concepts will be explored through laboratory techniques, manipulation of chemical quantities and advanced problem-solving techniques. Scientific and engineering practices are embedded as a means to learn about specific topics identified for the course. Engaging in these practices will help students become scientifically literate and astute consumers of scientific information. Coursework requires high competency with Algebra I skills. This course is fast-paced, challenging, and requires higher math skills than for Chemistry I.

PHYSICAL SCIENCE

One Semester **1 credit** **EOC: NO** **Grade 10-12**

This course is an introduction to Physics and Chemistry. Students learn proper scientific investigation methods and reporting through experimentation, data collection, graphing, and analysis. Physics topics include Newton's Laws, acceleration, universal forces, waves, momentum, lenses, magnetism, and electricity. Chemistry topics include the periodic table of elements, chemical reactions, atomic structure, chemical bonding, nuclear and organic chemistry, and electron configuration. This is a lab course. Learning methods include online interaction, class and online discussions, labs, simulations, demonstrations, unit tests and departmental benchmark exams. Basic algebra is needed.

HUMAN ANATOMY & PHYSIOLOGY

One Semester **1 credit** **EOC: NO** **Grade 10-12**

Prerequisite: Biology 1 & Chemistry 1

Human Anatomy and Physiology is a laboratory science course that includes an in-depth study of the body systems that maintain homeostasis from anatomical, physiological, and histological perspectives. Students explore anatomical and physiological concepts through an inquiry-based approach. Embedded standards for Inquiry and Technology & Engineering are taught in the context of the content standards for Anatomical Orientation, Protection, Support, and Movement, Integration and Regulation, Transportation, Absorption and Excretion, and Reproduction, Growth, and Development.

HUMAN ANATOMY & PHYSIOLOGY HONORS

One Semester **1 credit** **EOC: NO** **Grade 10-12**

Prerequisite: Biology 1 & Chemistry 1

Human Anatomy and Physiology Honors is a laboratory science course that includes a more rigorous and in-depth study of the body systems that maintain homeostasis from anatomical, physiological, and histological perspectives. Students explore anatomical and physiological concepts through an inquiry-based approach. Embedded standards for Inquiry and Technology & Engineering are taught in the context of the content standards for Anatomical Orientation, Protection, Support, and Movement, Integration and Regulation, Transportation, Absorption and Excretion, and Reproduction, Growth, and Development. This course is recommended for students planning on pursuing a career in the medical field.

BIOLOGY 2 HONORS

One Semester **1 credit** **EOC: NO** **Grade 10-12**

Prerequisite: Biology 1 & Chemistry 1

Biology 2 Honors is a science course with prerequisites of both Biology 1 and Chemistry 1. This class is open to students who have met these requirements and is required for all students enrolling in AP Biology. This course will encompass a more in-depth study of cell biology and associated biochemistry, energy processes, biodiversity and change, and comparison of form and function of plant and animal processes. This course will meet the Tennessee Standards for Biology 2 as well as those for related topics in AP Biology.

CHEMISTRY 2 HONORS

One Semester **1 credit** **EOC: NO** **Grade 10-12**
Prerequisite: Biology 1 & Chemistry 1

Chemistry 2 provides students with a college-level foundation to support future advanced course work in chemistry. This class is **required** for all students enrolling in AP Chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore topics such as: elemental analysis, properties of solutions, electrochemistry, molecular geometry and intermolecular forces, thermodynamics, and properties of gases. Laboratory experiments are designed to reinforce lecture topics and the math calculations applied to chemical principles. Students enrolling in the course should have strong academic standing and possess good study and homework completion habits, as well as the ability to work independently.

PHYSICS

One Semester **1 credit** **EOC: NO** **Grade 10-12**
Prerequisite: Biology 1; completed Algebra 1 and/or Geometry; Chemistry or Physics is a required course for graduation.

Physics is the study of the physical world with an emphasis on the relationship between matter and energy. This course is a survey designed to prepare students for further study at the college level and is also beneficial for those students who are interested in careers in technology, engineering, or other related fields. Areas of study will include linear motion and its causes, fluid mechanics, sound, vibrations and waves, electricity and circuits and possibly other areas as time permits. Students will use algebra I, geometry & some trigonometry in all areas of study (although the trigonometry skills needed can be gained in the course itself). Inquiry-based laboratory experiences and hands-on projects are major components of the class.

ADVANCED PLACEMENT BIOLOGY

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 10-12**
Prerequisite: Biology 2 Hon

AP Biology is an introductory college level biology course and is suggested for students pursuing a career in the sciences or a related field such as healthcare or engineering. This course focuses on educational standards set forth by the College Board with specific learning objectives that stem from the four big ideas of evolution, cellular processes, genetics, and biological systems interactions. Students develop their understanding of biology through inquiry-based investigations. This course is an in-depth course of study that includes cell structure and function, bioenergetics, biochemistry, bioinformatics, biotechnology, genetics, evolution, and cell communication.

ADVANCED PLACEMENT CHEMISTRY

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 10-12**
Prerequisite: Chemistry 2 Hon and concurrently taking Algebra 2 or higher-level math course

The AP Chemistry course provides students with a college-level foundation to support future advanced course work in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore topics such as: atomic structure, bond theory, kinetics, equilibrium (general, acid-base, buffers, and solubility product), and organic chemistry. Laboratory experiments are designed to reinforce lecture topics and the math calculations applied to chemical principles. Students enrolling in the course should have strong academic standing and possess good study and homework completion habits, as well as the ability to work independently.

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES

1 Semester **1 credit** **EPSO** **EOC: NO** **Grade 9-12**
Prerequisite: Algebra 1; satisfies computer science requirement and counts as third lab science or substitutes for fourth math credit

AP Computer Science Principles is an introductory college-level course that covers the fundamentals of computer science. Students learn to design solutions, apply algorithms, and use data to solve problems. They explore computing innovations, understand how computing systems work, assess their impacts, and engage in a collaborative and ethical computing culture.

ADVANCED PLACEMENT COMPUTER SCIENCE A

1 Semester **1 credit** **EPSO** **EOC: NO** **Grade 9-12**

Prerequisite: Algebra 1; satisfies computer science requirement and counts as third lab science or substitutes for fourth math credit

AP Computer Science A introduces students to programming through key concepts like problem-solving, data structures, algorithm development, and ethical implications of computing. The course focuses on object-oriented programming and design using Java.

ADVANCED PLACEMENT PHYSICS I – ALGEBRA BASED

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 10-12**

Prerequisite: No prior physics coursework is required. Students need to have completed Algebra 1 and Geometry, and be taking Algebra 2 or a higher-level math course. Basic trigonometry will be covered in the concurrent math course.

AP Physics 1 is an algebra-based, introductory college-level course emphasizing inquiry-based learning. Topics include kinematics, dynamics, energy, momentum, and more. The course requires 25% of instructional time for hands-on laboratory work, allowing students to engage in science practices like designing experiments, analyzing data, and communicating findings.

ADVANCED PLACEMENT PHYSICS II – ALGEBRA BASED

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 10-12**

Prerequisite: AP Physics I; students should have completed Algebra 2

AP Physics 2 is an algebra-based, introductory college-level course focused on various physics topics, including fluids, thermodynamics, electricity, magnetism, optics, and quantum physics. The course emphasizes inquiry-based investigations, requiring 25% of instructional time to be spent on hands-on laboratory work. This approach allows students to engage in science practices, such as designing experiments, making predictions, analyzing data, and communicating their findings.

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 10-12**

Prerequisite: Biology & Chemistry

AP Environmental Science is an interdisciplinary course that explores ecological processes and human impacts on the Earth. Students will investigate the interrelationships within the natural world, analyze environmental problems, assess their risks, and examine solutions. The course includes hands-on experiments on air, water, and soil qualities, focusing on current global and local environmental issues.

EARTH AND SPACE SCIENCE

One Semester **1 credit** **EOC: NO** **Grade 11-12**

Prerequisite: Biology 1 & Chemistry 1

The Earth and Space Science course explores Earth's position in the universe, the interaction of its systems, and their relationships with human activities. It examines Earth's changes over time and the ongoing dynamics affecting the hydrosphere, biosphere, atmosphere, and geosphere. The course introduces various interdisciplinary fields, including geology, astronomy, atmospheric science, and marine science, and emphasizes critical thinking skills through lab work.

ORGANIC CHEMISTRY HONORS

One Semester **1 credit** **EOC: NO** **Grade 11-12**

Prerequisite: Chemistry 2; does not count as third lab science

Organic Chemistry is an advanced honors course focused on carbon-containing compounds. Key topics include nomenclature, characteristics, molecular bonding, stereochemistry, reactions, and synthesis. The lab component emphasizes the synthesis, purification, and verification of organic compounds using spectroscopy and other methods. The course culminates in a student-directed laboratory analysis of an unknown compound, preparing students for college-level organic chemistry.

Social Studies Department

To satisfy graduation requirements, each student must earn three credits of social studies: World History & Geography, U.S. History & Geography, U.S. Government & Civics (1/2 credit) and Economics (1/2 credit). All students must take the Civics exam to graduate.

WORLD HISTORY & GEOGRAPHY

One Semester **1 credit** **EOC: NO** **Grade 9-12**
Required course for graduation

This course covers global history from 1500 to the present, focusing on significant eras such as the Renaissance, Exploration, Absolutism, Enlightenment, Revolution, Industrial Revolution, Democracy, WWI, Nationalism, WWII, Cold War, and Globalization. The course emphasizes geographic influences, connections to Tennessee and U.S. history, and the analysis of primary source documents while developing history writing skills

ADVANCED PLACEMENT HUMAN GEOGRAPHY

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 9-12**
This course satisfies the World History & Geography credit for graduation.

The AP Human Geography course is equivalent to an introductory college-level course in human geography. The course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. The curriculum reflects the goals of the National Geography Standards (2012).

ADVANCED PLACEMENT WORLD HISTORY

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 10-12**
This course satisfies the World History & Geography credit for graduation.

AP World History is equivalent to an introductory college course, covering significant historical events and processes from around 1200 CE to the present. Students engage in skills used by historians, such as analyzing sources and developing arguments. The course includes nine thematic units that connect historical developments across different times and places: Global Tapestry, Networks of Exchange, Land-Based Empires, Transoceanic Interconnections, Revolutions, Consequences of Industrialization, Global Conflict, Cold War and Decolonization, and Globalization.

ADVANCED PLACEMENT EUROPEAN HISTORY

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 10-12**
This course satisfies the World History & Geography credit for graduation.

AP European History is equivalent to a two-semester college course, covering significant events and developments from around 1450 to the present. Students learn historian skills, such as analyzing sources and making historical arguments, while exploring six themes: interaction between Europe and the world, poverty and prosperity, objective knowledge versus subjective visions, institutions of power, individual versus society, and national versus European identity.

ADVANCED PLACEMENT U.S. HISTORY

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 11-12**
This course satisfies the U.S. History credit for graduation.

AP U.S. History is equivalent to a two-semester college course, covering significant events and developments from 1491 to the present across nine historical periods. Students learn to analyze primary and secondary sources, develop historical arguments, and make comparisons, employing skills used by historians. The course explores seven themes: American identity, migration, politics, work and technology, America's global role, geography, and culture, fostering connections among historical developments.

U.S. HISTORY & GEOGRAPHY

One Semester **1 credit** **EOC: YES** **Grade 10-12**
Required course for graduation

The U.S. History course is designed to explore the major historical events from the Industrial Revolution to Present. Students will be expected to use historical analysis to determine how social, cultural, economic, and political events shaped our nation's history to present day. During the semester course students will explore the major historical themes of the Industrial Revolution, Populism and Progressivism, Imperialism through World War I, 1920's and Great Depression, World War II, Cold War, Civil Rights movements, 1960's- 1970's political and social movements and the 1980's to the Obama administration. The course is a state required course for graduation and has a required End of Course exam.

U.S. GOVERNMENT & CIVICS

Half Semester **1/2 credit** **EOC: NO** **Grade 11-12**
Required course for graduation; must take Civics test to graduate. Available to take online (grades 10-12).

Students will study the purposes, principles, and practices of American government as established by the Constitution. Students are expected to understand their rights and responsibilities as citizens and how to exercise these rights and responsibilities in local, state, and national government. Students will learn the structure and processes of the government of the state of Tennessee and various local governments. The reading of primary source documents is a key feature of United States Government and Civics standards.

ECONOMICS

Half Semester **1/2 credit** **EOC: NO** **Grade 11-12**
Required for graduation; available to take online (grades 10-12).

Students will examine the allocation of scarce resources and the economic reasoning used by government agencies and by people as consumers, producers, savers, investors, workers, and voters. Key elements of the course include the study of scarcity, supply and demand, market structures, the role of government, national income determination, money and the role of financial institutions, economic stabilization, and trade. Students will examine the key economic philosophies and economists who have influenced the economies around the world in the past and present. Informational text and primary sources will play an instrumental part of the study of economics where it is appropriate.

ADVANCED PLACEMENT MICRO/MACROECONOMICS

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 11-12**
This course satisfies the Economics credit for graduation; emphasis is on preparation for the AP Microeconomics and AP Macroeconomics exams.

AP Microeconomics/Macroeconomics is an introductory college-level course that focuses on the principles of economics that apply to the functions of individual economic decision-makers and to an economic system as a whole. The course also develops students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. The course places particular emphasis on the study of national income and price-level determination; it also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts.

ADVANCED PLACEMENT U.S. GOVERNMENT

One Semester **1 credit** **EPSO** **EOC: NO** **Grade 11-12**
This course satisfies the Government credit for graduation; must take Civics test to graduate

AP United States Government and Politics introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning assess causes and consequences of political events, and interpret data to develop evidence-based arguments.

Social Studies Elective Courses

AFRICAN AMERICAN HISTORY

One Semester	1 credit	EOC: NO	Grade 10-12

Students will examine the life and contributions of African Americans from the early 1600's through modern America and explore the influence of geography on slavery and the growth of slavery on the American continent. Students will consider urban and rural African American communities and institutions in the North and South leading up to and during the Civil War. Students will investigate the rise and effects of Jim Crow and trace the impact of African American migration through the early twentieth century. Students will explore the impact of the Harlem Renaissance and the conditions and contributions of African Americans during the Great Depression and World War II. Students will examine the successes and failures of the Civil Rights Movement and consider the contemporary issues confronting African Americans.

ADVANCED PLACEMENT PSYCHOLOGY

One Semester	1 credit	EPSO	EOC: NO	Grade 11-12

The AP Psychology course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with such topics as the biological bases of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatment of abnormal behavior, and social psychology. Throughout the course, students employ psychological research methods, including ethical considerations, as they use the scientific method, evaluate claims and evidence, and effectively communicate ideas.

ANCIENT HISTORY

One Semester	1 credit	EOC: NO	Grade 9-12

Students will examine the major periods of Ancient History from prehistoric times to 1500 AD/CE. Major emphasis will be given to the Neolithic Revolution, the development of river valley civilizations, the rise of Greece and Rome, and the decline and fall of the Roman Empire.

APPALACHIAN HISTORY

One Semester	1 credit	EOC: NO	Grade 10-12

This course is recommended to students who have a genuine interest in Appalachian Studies. Topics include early Native Americans, Explorers, and Settlers of East Tennessee, and will include chapters on Perfect 36, State and National leaders and heroes such as York, Hull, and Senator Baker. This writing intensive course will be designed to develop critical thinking skills by using various independent research methods.

CONTEMPORARY ISSUES

One Semester	1 credit	EOC: NO	Grade 10-12

Students will use inquiry skills to examine the issues that impact the contemporary world. Included in the course will be analysis of the historical, cultural, economic, and geographic factors that have raised certain issues to levels of concern in our nation and around the globe. Students will engage in research and problem solving in order to better understand and assess significant current issues.

ITALIAN HISTORY: ROMAN EMPIRE TO RENAISSANCE

One Semester	1 credit	EOC: NO	Grade 9-12

This course will provide an overview of the cultural and artistic history of Italy from its origins up until the end of the Renaissance. Students will explore the development of the art, architecture, culture, and history of Italy. Students will develop an understanding of Italy's role in the development of Western Civilization and an ability to analyze and understand works of art and their historical context. This course will focus on an analysis of texts, art, and architecture to inform students in a more engaged manner and enable them to discuss the historical evolution and cultural impact of Italy across the millennia.

PSYCHOLOGY

One Semester **1 credit** **EOC: NO** **Grade 10-12**
Available online only

Students will examine the processes and systems affecting human thought and behavior. Some of the topics covered include the structure and function of the nervous system in humans, the processes of sensation and perception, life span development, and memory, abnormal behavior, psychological disorders and their treatment, etc. Students will examine social and cultural diversity as well as diversity among individuals. Throughout the course, students will examine connections between content areas within psychology and relate psychological knowledge to everyday life while exploring the variety of careers available to those who study psychology.

SOCIOLOGY

One Semester **1 credit** **EOC: NO** **Grade 10-12**

Students will explore the ways sociologists view society, and also how they study the social world. In addition, students will examine culture, socialization, deviance and the structure and impact of institutions and organizations. Also, students will study selected social problems and how change impacts individuals and societies.

SPORTS PSYCHOLOGY

One Semester **1 credit** **EOC: NO** **Grade 9-12**
Not approved course for NCAA

Psychology is a scientific study of human behavior. In the Sports Psychology course, we will focus primarily on how we can influence our behavior in a performance setting. We will not only study what happens during athletic performance, but we will discover and practice ways to implement strategies to improve individual performances! Topics of study may include growth/success, motivation, confidence, relaxation/visualization, positive self-talk, goal setting, mental toughness, focus, society and sport.

THE HOLOCAUST

One Semester **1 credit** **EOC: NO** **Grade 11-12**

This writing and reading intensive course will delve into the history of the Jewish people, the rise of Adolf Hitler and the Nazi Party, the growing persecution during the 1930s, and the perpetration of the Holocaust. Students will wrestle with the roots of the Holocaust in ideology, culture, and prejudice. In addition, time will be spent focusing on other mass genocides that have occurred during the 20th century.

U.S. HISTORY THROUGH FILM (20TH CENTURY)

One Semester **1 credit** **EOC: NO** **Grade 10-12**
This course DOES NOT meet the graduation requirement for U.S. History credit; permission slip required

U.S. History through Film is designed to be an elective class to enhance the state mandated U.S. History course usually taken in the 11th grade year. Students are encouraged to take the class to explore how recorded historical events are portrayed in film. Students will be expected to write at length on a weekly basis analyzing the historical accuracy of the films. All films are directly correlated to the Tennessee U.S. History standards covering the major historical eras in U.S. History. A parent-signed "Rated-R Film" permission slip is required for this class.

WAR AND AMERICAN SOCIETY

One Semester **1 credit** **EOC: NO** **Grade 10-12**

This course will examine the impact of war on American society from colonial times to the Cold War. The class will focus on political, social, cultural, and military themes. Special emphasis is placed on the American Civil War and World War II. Connections will be made with Tennessee history and US History standards.

WOMEN IN U.S. HISTORY

One Semester **1 credit** **EOC: NO** **Grade 10-12**

The main focus of this course will be women and their societal advancement through American History. Discussion of the status of women in a more global perspective will occur. Women in US History examines the experiences and contributions of diverse groups of women in American society. This course will provide knowledge about the social role of women and their involvement in areas such as health, history, and political activism.

Computer Science

Beginning with the incoming 2024-25 freshman cohort, candidates for regular high school diplomas must earn at least one computer science credit in high school. Students may fulfill this requirement by substituting computer science for the student's fourth credit of mathematics, third credit of science, or an elective focus credit (see Allowable Substitutions, p. 5). The courses below meet the computer science graduation requirement.

COMPUTER SCIENCE

One Semester **1 credit** **Grade 9-12**

Required for all students beginning with freshman cohort 2024-25. Available to take online.

This course also satisfies the third lab science credit or fourth math credit for graduation.

An introductory computing course that introduces students to the breadth of the field of computer science in a project-based learning environment. Students will investigate problems and design and evaluate solutions using algorithmic thinking and testing. Using digital data analysis, they will begin to identify trends and patterns to create new knowledge. Students also explain how computing innovations and computing systems—including the internet—work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES

1 Semester **1 credit** **EPSO** **EOC: NO** **Grade 9-12**

Prerequisite: Algebra 1; satisfies computer science requirement and counts as third lab science or substitutes for fourth math credit

AP Computer Science Principles is an introductory college-level computing course that introduces students to the breadth of the field of computer science. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into programs and use data to discover new knowledge. Students also explain how computing innovations and computing systems—including the internet—work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.

ADVANCED PLACEMENT COMPUTER SCIENCE A

1 Semester **1 credit** **EPSO** **EOC: NO** **Grade 9-12**

Prerequisite: Algebra 1; satisfies computer science requirement; counts as third lab science or substitutes for fourth math credit

AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language.

COMPUTER SCIENCE FOUNDATIONS

One Semester **1 credit** **Grade 9-11**

Prerequisite: None; satisfies computer science requirement; counts as CTE elective and substitutes for fourth math credit or third lab science.

The foundational course in the Cybersecurity program of study that exposes students to various information technology occupations. Proficient students will be able to describe various information technology (IT) occupations and professional organizations. Moreover, they will be able to demonstrate logical thought processes and discuss the social, legal, and ethical issues encountered in the IT profession.

Physical Education

To satisfy graduation requirements, each student must earn one credit in Wellness and half credit in a Personal Fitness course. Since Science Hill High School operates on a semester block schedule, to obtain the half credit in Personal Fitness, this class is typically paired up with Personal Finance. Two credits in JROTC may be substituted for the Wellness credit & half credit of PE. As of SY 2019-2020, the 0.5 credit Personal Fitness requirement may be met by substituting a documented and equivalent time of physical activity in SHHS Marching Band, any TSSAA activity or sport, Unity, or Swim & Dive Team.

LIFETIME WELLNESS

One Semester **1 credit** **Grade 9**

This is a required course for all students (two semesters of JROTC meets this requirement). Available to take online.

This course is required for graduation and is recommended for all students to take in grade 9. Lifetime Wellness is a course that develops positive concepts towards an active, healthy lifestyle. Students will explore growth, aging, emotional health, nutrition, disease prevention, substance abuse, and fitness through classroom work as well as gym participation.

LIFETIME SPORTS EDUCATION

One Semester **1 credit** **Grade 10-12**

Prerequisite: Lifetime Wellness

This class is a daily physical activity class where the student will learn and play a variety of sports and games. Lifetime sports is the closest class offered to a traditional PE class. Sports and activities will usually be a minimum of 1-week units, with more popular sports lasting longer. Examples of sports played are volleyball, football, basketball, soccer, kickball, tennis, etc. This class is geared toward students who enjoy physical activity and sports. Participation and effort are vital to student success in Lifetime Sports.

MEN'S WEIGHTLIFTING

One Semester **1 credit** **Grade 10-12**

Prerequisite: Lifetime Wellness

This class will be involved in the following activities: power cleans, dead lifts, squats, bench press, explosion lifts, form running, agility training, and speed training. This is a sports specific class. Students participating in fall sports are recommended to take this class in the spring. Students participating in spring sports are recommended to take this class in the fall.

WOMEN'S WEIGHTLIFTING

One Semester **1 credit** **Grade 10-12**

Prerequisite: Lifetime Wellness

Women's Weightlifting is a daily physical activity class where each student will learn and perform a variety of weightlifting movements. Proper form and technique will be the most important part of participating in this class. Out of the five components of fitness (muscular strength, muscular endurance, cardiovascular endurance, flexibility, and body composition), this class will focus mainly on muscular strength and endurance. Activities include but are not limited to basic weight training (squat, bench press, overhead press, deadlift), calisthenics (push-ups, sit-ups), stretching (flexibility), and circuit training. The class will learn how to properly warm-up before exercise, proper form on basic weightlifting movements and calisthenics, and how to cool down/stretch after exercise. This is a sports specific class. Students participating in fall sports are recommended to take this class in the spring. Students participating in spring sports are recommended to take this class in the fall.

DRIVER'S EDUCATION AND PHYSICAL EDUCATION

One Semester **1/2 credit in each class** **Grade 10**

Prerequisite: Lifetime Wellness; must be age 15 or older with acceptable attendance and on track to graduate.

Our Driver Education program is designed to help young drivers develop the knowledge, skills, and attitudes necessary to become safe, low-risk, responsible drivers – and to DRIVE RIGHT! Classroom preparation, which occurs during the first 5 weeks of the term (30 hours of safety/classroom instruction), prepares the student to handle the diverse aspects of the driving task. The class will be combined with Physical Education (Lifetime Sports). After the classroom portion of Driver's Ed is completed, students will be in the gym for Lifetime Sports. Please take this into consideration before signing up. Students will be in a PE class everyday unless it is their turn to drive. Students will receive 6 hours of Behind the Wheel training as well as a minimum of 30 hours safety instruction. Schedules will be determined and given to each student at the beginning of the driving experience. Each student will receive a certificate of completion after requirements are completed.

PERSONAL FITNESS

Half Semester **1/2 credit** **Grade 11-12**

Prerequisite: Lifetime Wellness. Class is typically paired with Personal Finance. Available to take online (grades 10-12). Required for graduation; See full list of allowable substitutions for activities or other courses that meet requirement. If student uses PE waiver, student must take Finance online.

Personal Fitness is a daily physical activity class where the student will learn and participate in a variety of activities addressing the five components of fitness (muscular strength, muscular endurance, cardiovascular endurance, flexibility, and body composition). Activities include but are not limited to basic weight training (muscular strength/endurance), calisthenics (push-ups, sit-ups), running (cardiovascular endurance), stretching (flexibility), and circuit training (muscular strength/endurance and cardiovascular endurance). The class will learn how to properly warm-up before exercise, proper form on basic weight lifting movements and calisthenics, and how to cool down/stretch after exercise. Personal Fitness is a 9-week course that is usually paired with Personal Finance.

OFFICIATING TEAM SPORTS

One Semester **1 credit** **Grade 10-12**

Prerequisite: Lifetime Sports or equivalent, and be age 16 or older, or turn age 16 during academic year.

Course is designed to provide students the knowledge and skills necessary for students who wish to become a registered official with the Tennessee Secondary Schools Athletic Association (TSSAA). The course will cover officiating volleyball, football, wrestling, basketball, soccer, baseball, softball, and track and field. Upon completion of the course students will be afforded the option of taking certification exams for any sports components.

Finance

To satisfy graduation requirements, each student must earn a half credit in Personal Finance. This class is typically paired up with Personal Fitness. Two credits in JROTC may be substituted for the Wellness credit. One additional credit in JROTC may be substituted for the Personal Finance and US Government credits.

PERSONAL FINANCE

Half Semester **1/2 credit** **Grade 11-12**

Prerequisite: Lifetime Wellness. Available to take online; class is typically paired with Personal Fitness.

Personal Finance is a course designed to inform students how individual choices directly influence occupational goals and future earnings potential. Real world topics covered will include income, money management, spending and credit, as well as savings and investment. Students will design personal and household budgets; simulate the use of checking and savings accounts; demonstrate knowledge of finance, debt, and credit management; and evaluate and understand insurance and taxes. This course will provide a foundational understanding for making informed personal financial decisions.

JROTC Department

Army Junior Reserve Officer Training Corps (JROTC)
Mission "Motivating Young People to Be Better Citizens"
Leadership, Respect, Attitude!!! A Winning Tradition that is the cornerstone of our program.

Junior ROTC is designed to teach high school students the value of citizenship, leadership service to the community, personal responsibility, and a sense of accomplishment, while instilling in them self-esteem, teamwork and self-discipline. On average, the total number of community service hours this program volunteers are over 2,000 - 3,000 hours. In addition, these hours help our students earn college scholarships. The program prepares high school students for responsible leadership roles while making them aware of their rights, responsibilities and privileges as American citizens. JROTC is a stimulus for promoting graduation from high school, and it provides instruction and rewarding opportunities that will benefit the student, community and nation. Simply stated, the program prepares our cadets for life after high school.

The JROTC program is not set up to recruit and instructors do not request or expect a military commitment of any kind. There is no service obligation. Nonetheless, many cadets find they enjoy military discipline and structure; it brings out their best and allows them to excel. Some students earn appointments to one of the military academies or earn a commission as a Second Lieutenant through college ROTC.

JROTC is much more than wearing a uniform and learning to march. Our program of instruction also includes:

- **Leadership Theory and Application**
- **Communication Skills**
- **Conflict Resolution**
- **Social and Community Responsibility**
- **Financial Planning**
- **Citizenship and History**
- **Wellness, Fitness and First Aid**
- **Substance Abuse Awareness**
- **Geography**
- **Land Navigation**
- **Air Rifle Safety and Marksmanship**
- **Career Planning**

Extra-Curricular Activities

- **Male & Female Drill Competitions**
- **Color Guard**
- **Drill and Staff Summer Camp**
- **Washington DC Field Trips**
- **Escorts and Charity Events**
- **Parades**
- **Academic Competitions**
- **Community Service**
- **Fitness Competitions**
- **Formal Military Ball**
- **Change of Command & Promotion Banquet**
- **Awards Night**
- **Annual Inspections**
- **Marksmanship Matches**

JROTC 1, 2, 3, 4

One Semester **1 credit** **Grade 9-12**

Two semesters of JROTC fulfills the Wellness and half credit of PE requirement. Third semester of JROTC meets the graduation requirement for ½ credit for Government and ½ credit Personal Finance.

Prerequisite: C or better in previous JROTC course and teacher recommendation

Citizenship, leadership, teamwork, and physical fitness are emphasized along with proper response to authority, and respect for the Army's role in support of our country. Topics include personal finance, map reading, marksmanship, drill and ceremonies, rappelling, and communication. Students also compete in Cadet Challenge and the National Presidential Fitness Awards. All uniforms are provided, free-of-charge, and must be returned clean and in good condition at the end of the semester/year. Students are required to wear the uniform all day one day per week.

World Language Department

To satisfy graduation requirements, each student must earn two credits in the same world language. Students not planning to attend a four-year university have the option of waiving this requirement, but must complete 3 additional Focus credits. Students choosing this option must return a completed World Language/Fine Art waiver form to their counselor.

FRENCH 1

One Semester **1 credit** **Grade 9-12**

French 1 will introduce French-speaking areas of the world. It will also include numbers, time, basic phrases, weather, alphabet, clothing, colors, foods, and holidays. Students will be required to speak aloud in class and will make presentations both in French and English.

FRENCH 2

One Semester **1 credit** **Grade 9-12**

Prerequisite: French 1

Students will continue to learn French vocabulary and grammar along with cultural events, social, political, and economic issues. Activities include: skits, songs, and games. Students will give oral responses and presentations in French in class.

FRENCH 3 HONORS

One Semester **1 credit** **Grade 10-12**

Prerequisite: French 2 with a recommended minimum grade of B

Much of this class will be taught in French. Time will be spent on vocabulary and grammar and will focus on conversational skills and expanding their writing abilities. Topics include geography of France, body parts, and current events in France.

FRENCH 4 HONORS

One Semester **1 credit** **Grade 10-12**

Prerequisite: French 3 with a recommended minimum grade of B

Much of this class will be taught in French. Students will study grammar forms and explore French culture through reading French texts. Students will speak and write in French including creating and presenting a play in French.

ADVANCED PLACEMENT FRENCH LANGUAGE & CULTURE

One Semester **1 credit** **EPSO** **Grade 11-12**

Prerequisite: French 4 with a recommended minimum grade of B

The AP French Language and Culture course emphasizes effective communication through interpersonal, interpretive, and presentational skills in real-life situations. It covers vocabulary usage, language control, and cultural awareness. Students explore cultural products (books, music, laws), practices (social interactions), and perspectives (values and attitudes).

GERMAN 1

One Semester **1 credit** **Grade 9-12**

Students will use vocabulary quizzes and interactive lessons to practice essential grammar, vocabulary, and cultural skills for living in a German-speaking country, with a focus on speaking and understanding the language. Topics will include hobbies, food, family, animals, and school.

GERMAN 2

One Semester **1 credit** **Grade 9-12**

Prerequisite: German 1

Students will learn vocabulary for topics like asking for directions, travel, and restaurants. They will also research European countries and their cultures.

GERMAN 3 HONORS

One Semester **1 credit** **Grade 10-12**
Prerequisite: German 2

Students will read German literature, magazines, and newspapers, write in German, and practice speaking.

GERMAN 4 HONORS

One Semester **1 credit** **Grade 10-12**
Prerequisite: German 3

Students will continue studying German culture and grammar through activities such as reading German literature, magazines, and newspapers, writing in German, and practicing speaking.

HERITAGE SPANISH 1 & 2

Two Semesters **1 credit each semester** **Grade 9-12**
Prerequisite: Fluent in Spanish

This course is designed for the specific needs of Native Spanish Speakers to improve reading and writing in Spanish. The course will also include class discussion, group projects and essay writing.

SPANISH 1

One Semester **1 credit** **Grade 9-12**

The overall objectives of this course are to develop the students' listening, speaking, reading, and writing skills with the goal of communication on a basic level in Spanish and to acquaint students with cultural aspects of the Spanish speaking world. Speaking aloud is required.

SPANISH 2

One Semester **1 credit** **Grade 9-12**
Prerequisite: Spanish 1

This course builds on the skill set acquired from Spanish 1 with a concentration on new vocabulary words as well as new verb tenses. Students will improve listening, speaking, reading, and writing skills. Speaking aloud is required.

SPANISH 3 HONORS

One Semester **1 credit** **Grade 10-12**
Prerequisite: Spanish 2 with a recommended minimum grade of B; speaking aloud is required!

This course is an expansion of Spanish 1 and Spanish 2 and strives to further listening, speaking, reading and writing skills. Emphasis is placed on reading comprehension and the analysis of original texts. Oral and written self-expression in the target language is a major objective. Speaking aloud is required.

SPANISH 4 HONORS

One Semester **1 credit** **Grade 10-12**
Prerequisite: Spanish 3 with a recommended minimum grade of B; speaking aloud is required!

This course builds on the skill set acquired from Spanish 1, 2 and 3. Emphasis in Spanish 4 is placed on listening and reading comprehension, oral fluency and written proficiency.

ADVANCED PLACEMENT SPANISH LANGUAGE AND CULTURE

One Semester **1 credit** **EPSO** **Grade 11-12**
Prerequisite: Spanish 4 with a recommended minimum grade of B; speaking aloud is required!

The AP Spanish Language and Culture course focuses on effective communication through interpersonal, interpretive, and presentational skills in real-life contexts. It covers vocabulary use, language proficiency, communication strategies, and cultural awareness. Students explore cultural products (books, music, laws), practices (social interaction patterns), and perspectives (values and attitudes).

Fine Art Department

To satisfy graduation requirements, each student must earn one credit in a fine art. Students not planning to attend a four-year university have the option of waiving this requirement, but must complete 3 additional Focus credits. Students choosing this option must return a completed World Language/Fine Art waiver form to their counselor.

ART

VISUAL ART I

One Semester **1 credit** **Grade 9-12**

Art 1 focuses on art history, art criticism, and art production. This course will cover all the elements and principles of design. Students will use pencil, pen and ink, paint, charcoal, pastels, and various other media. 10-12 students are required to keep a sketchbook.

VISUAL ART II

One Semester **1 credit** **Grade 10-12**

Prerequisite: Art I with a required grade of a B or better

This course is a more in-depth study of Art History, Art Criticism, and Art Production. Students should be interested in an art career. The course will explore Art Elements & Principles of Design at a higher level. The students are required to keep a sketchbook and will be expected to perform at a more advanced level.

CERAMICS

One Semester **1 credit** **Grade 10-12**

Basic hand-building techniques will be used to construct containers in pinch, coil, and slab configurations. Combinations of methods will be used to make complex shapes. An introduction to wheel-thrown pottery will be presented. Glaze applications and firing methods will be shown using the electric kiln model.

CERAMICS II

One Semester **1 credit** **Grade 11-12**

Prerequisite: Pottery/Ceramics I with a required grade of B or better

Advanced hand-building and wheel throwing techniques will be used to create complex pottery shapes. An in-depth study of Pottery, Ceramics and Ceramic History will be explored as well as complex glazing techniques. Students should be interested in an art career. Students will be required to keep a sketchbook and to perform at a more advanced level.

AP ART AND DESIGN

One Semester **1 credit** **EPSO** **Grade 10-12**

Prerequisite: Art II or Ceramics II with a grade of B or better or teacher recommendation. This course requires teacher approval prior to registration

In AP Art and Design students will creatively and systematically investigate formal and conceptual issues, make art as an ongoing process that involves students in informed and critical decision making, develop technical skills and familiarize themselves with the functions of visual elements, and become independent thinkers contributing inventively and critically to their culture through artmaking. The AP Art and Design course is designed for students who are seriously interested in the practical experience of art. AP Art and Design is not based on a written exam; instead, students submit portfolios for evaluation near the end of the school year. Students select from one of the following modes: 2-D Art and Design, 3-D Art and Design, or Drawing.

THEATRE

THEATRE ARTS 1

One Semester **1 credit** **Grade 9-12**

This course is designed to introduce students to the critical skill of being more confident, comfortable, and creative in front of others in a fun, low-stakes environment. The course is primarily project-based: brief, in-class performances will comprise most required major grades. Students will learn and refine skills such as improvisation, characterization, script analysis, and speaking, and they will also be introduced to forensics competition and the process of production. The ability to self-manage is essential for this course. No prior experience is required.

THEATRE ARTS 2

One Semester **1 credit** **Grade 9-12**
Prerequisite: Theatre Arts 1

This course is designed to allow students to develop a full-length play production for performance. Students will comprise the cast and crew of the in-class production, focusing on the entire process: play selection, auditions, direction, design, business management, and performance. The ability to self-manage is essential for this course. Students must have passed Theatre Arts 1 in order to enroll.

THEATRE ARTS 3: SHOWSTOPPERS 1 & 2

One Semester **1 credit each semester** **Grade 9-12**
Prerequisite: Theatre Arts 1; class can be taken multiple times; audition or Director recommendation ONLY

This course requires an audition or director recommendation. Students on the Showstopper team must prepare and participate in forensics events - Interpretation, Speaking, Limited Preparation, and Acting – to perform at regional weekend tournaments throughout the semester. Students must be enrolled in fall semester to participate in spring semester. Theatre Arts 2 is NOT a prerequisite for this course; only Theatre Arts 1.

INSTRUMENTAL MUSIC

ORCHESTRA

One Semester **1 credit each semester** **Grade 9-12**
Class can be taken multiple times

Orchestra is for students who have participated in the orchestra programs at Indian Trail Intermediate and Liberty Bell Middle School who play violin, viola, cello, or bass. Students who have taken private lessons for a minimum of three years or students who transfer from another school that were a member of their orchestra program can also participate. Students will perform four formal concerts per year plus a competition trip each spring.

MARCHING BAND
~ COLORGUARD ~ BRASS ~ WOODWIND ~ PERCUSSION

One Semester **1 credit** **Fall Semester** **Grade 9-12**

The Marching Band is the largest and most visible part of our band program. With over 150 performing members, the marching band has represented our school and state in front of over 500 million people on national television. With past performances in the Macy's, Tournament of Roses, Philadelphia, Chicago, and Hollywood Parades, many marching band championships, and the NBC Today Show, membership in this group has many opportunities to offer each member. Practices are scheduled beginning with band camp and continuing on Tuesday and Thursday afternoons through October. Performances at 12 football games and three marching contests are scheduled each fall in addition to any community parades. Each member of the marching band must be a member of a band class at Science Hill High School. An exception to the marching band requirement can be considered for those involved in another school activity that conflicts with the marching band schedule. This exemption is at the director's discretion.

WIND ENSEMBLE

One Semester	1 credit	Spring Semester	Grade 9-12

This is premiere musical group of the SHHS band program. This group performs the highest level of wind band music available. Recognized as one of the finest ensembles in the state, past performances include our state music convention and the Grand National Adjudicator's Invitational. **Membership is determined by an audition during the previous spring**. Two concerts are scheduled on campus each year with one or two concert festivals off campus. **Marching band is required for all members.** An exception to the marching band requirement can be considered for those involved in another school activity that conflicts with the marching band schedule. This exemption is at the director's discretion. Participation in the ETSBOA clinic in February is highly recommended. Students are tested on their mastery of concert music, technical exercises, and common terminology. Private lessons are highly encouraged due to the high level of difficulty of the music performed. Concert attire for ladies is a black conservative dress that must be below the knee when seated; men are provided a tuxedo jacket and pants from the school. **Men are to provide a tuxedo shirt, black bowtie, and cummerbund.**

SYMPHONIC BAND

One Semester	1 credit	Spring Semester	Grade 9-12

This ensemble consists of 9th-12th grade students and assigned by audition the previous spring. This group rehearses marching band music through October and high school concert band literature for the rest of the year. **Marching band is required of all members.** An exception to the marching band requirement can be considered for those involved in another school activity that conflicts with the marching band schedule. This exemption is at the director's discretion. Four concerts are scheduled each year along with a concert festival. Opportunities for several band clinics, leadership clinics, and solo and ensemble are offered each year. Students are encouraged to participate in the ETSBOA clinic in February. Students are tested on their mastery of concert music, technical exercises, and common terminology. Private lessons are highly encouraged but not required. Concert attire is black and white: ladies are to wear a white top that conforms to the school dress code and black pants; men are to wear black pants and a white collared shirt, black shoes and black socks.

PERCUSSION ENSEMBLE

One Semester	1 credit	Spring Semester	Grade 9-12

These ensembles are for percussionists in our program grades 10-12. Emphasis is placed on building effective percussion performance techniques through both a large and small ensemble. Focus in the fall is on marching percussion with a transition to concert percussion in the winter and spring. Each spring students are split into either the large or small ensemble periods. Students will audition each spring for placement in next year's ensembles. Select members will be chosen to perform with the wind groups when needed to complete instrumentation.

CHAMBER PERCUSSION ENSEMBLE

One Semester	1 credit	Spring Semester	Grade 9-12

Consisting of the top members of the Science Hill High School Percussion section, this group performs at various events each year, with performances including the Percussive Arts Society International Convention, the Tennessee Statewide Day of Percussion, and other events across the Southeast. Membership is determined by audition the previous Spring.

VOCAL MUSIC

TOPPER CHORUS

One Semester **1 credit** **Grade 9**
Class is only offered in the fall semester

This is a mixed performance chorus class that teaches the basics of vocal production. Students in this class will be required to participate in Fall Fest (2 nights), the Fall Concert, and the Holiday Concert. This class is available only during the fall Semester, and only to new students of the choral department. The class may not be retaken for credit. Students are responsible for the basic uniform of black dress pants, white button-front long-sleeve shirt, and black, closed-toe shoes.

TREBLE CHOIR 1 AND 2

One Semester **1 credit each semester** **Grade 9-12**
Enrollment by AUDITION ONLY; class can be taken multiple times

This is an advanced performance choir for treble voices with prior vocal experience. Emphasis will be placed on vocal production techniques as well as music reading skills. The repertoire will include Level V and VI SSA and SSAA music of various styles and forms. Students in this class will be required to participate in ALL mandatory choral productions.

CHAMBER CHOIR 1 AND 2

One Semester **1 credit each semester** **Grade 9-12**
Enrollment by AUDITION ONLY; class can be taken multiple times

This is an advanced choir for Soprano, Alto, Tenor, and Bass voices with prior vocal experience. Emphasis will be placed on vocal production techniques as well as music reading skills. The repertoire will include level V and VI music of SATB & divisi. Students may be added or removed from this chorus at the discretion of the director to sustain vocal blend necessary for this level of music. As the Chamber Choir is often called upon to represent Science Hill in the community, only students who are truly dedicated to performance will be allowed to remain in this choir.

MUSIC THEORY

ADVANCED PLACEMENT MUSIC THEORY

One Semester **1 credit** **EPSO** **Spring Class** **Grade 10-12**
Recommended: Strongly advised that students have at least one year of band, choir, or orchestra

The AP Music Theory course is comparable to the first year of college music theory. Through the course, students develop skills in the areas of written and aural music, as well as music composition. Specific skills include music dictation, sight-singing, score analysis, and ear training. Primary emphasis is placed on tonal music from each period of music history.

Career and Technical Education (CTE)

The Career and Technical Department offers a wide variety of technical courses for collaboration with academic courses. Our teachers are dedicated in the preparation of students to further their education in the post-secondary level of technical skills education, as well as preparing students to enter the job market with a positive influence.

Science Hill High School offers 14 career clusters. Within each career cluster, programs of study (also called career pathways) have been developed, which outline sequences of academic, career, and technical courses and training that begin as early as ninth grade and lead to progressively higher levels of education and higher-skilled positions in specific industries or occupations. Some of the career clusters that we offer here at Science Hill contain several programs of study or career pathways.

Each CTE Program of Study (POS) sponsors a CTE Student Organization (CTSO). These organizations, which are designed to enhance career and technical education programs, provide career and leadership development through peer interactions, adult mentoring, and contests and competitions based on knowledge and skills learned in the classroom. Students have the opportunity to participate on a local, regional, state, and national levels.

Students must have 3 credits in an elective focus to graduate. These credits can be in academics, fine arts, JROTC or a CTE cluster program. To complete the elective focus credits in a CTE program, all 3 credits must be in the same program of study.

The CTE career clusters offered at Science Hill High School are

- **Advanced Manufacturing**
- **Agricultural, Food, and Natural Resources**
- **Architecture & Construction**
- **Arts, A/V Technology and Communications**
- **Business Management & Administration**
- **Education & Training**
- **Health Science**
- **Hospitality and Tourism**
- **Human Services**
- **Information Technology**
- **Law, Public Safety, Corrections & Security**
- **Marketing**
- **STEM (Science, Technology, Engineering, & Mathematics)**
- **Transportation, Distribution, and Logistics**

Advanced Manufacturing

Welding is a vital skill in construction, manufacturing, and metal art, with strong demand for skilled welders, especially those open to travel. Novice welders can explore fields like pipe welding and ironworking, while experienced ones have opportunities in agriculture, transportation, and shipbuilding. Career prospects improve with a technical degree and experience. Key skills for welders include hand-to-eye coordination, fine motor skills, curiosity, patience, and communication.

Program of Studies

Mechatronics	**Principles of Manufacturing**	**Digital Electronics**	**Robotics & Automated Systems**	**Work Based Learning: Mechatronics**
	CTE Student Organization: Skills USA ***EPSO: FESTO Intro to Mechatronics, FESTO Intro to Exploring Electricity, FESTO Intro to Exploratory Electronics, FESTO Intro to Process Engineering, FESTO Industry 4.0***			

Welding	**Principles of Manufacturing**	**Welding I**	**Welding II**	**Work Based Learning: Welding**
	CTE Student Organization: Skills USA ***EPSO: OSHA 10***			

PRINCIPLES OF MANUFACTURING

One Semester **1 credit** **Grade 9-11**

This program introduces students to various careers in the Advanced Manufacturing cluster. Students will complete core standards and two focus areas to gain a comprehensive understanding of the manufacturing process and develop essential teamwork skills for a production environment.

DIGITAL ELECTRONICS

One Semester **1 credit** **Grade 9-12**
Prerequisite: Principles of Manufacturing

This course introduces students to the basic components of digital electronic systems, enabling them to design more complex systems. It also develops skills in technical documentation and troubleshooting circuits.

ROBOTICS & AUTOMATED SYSTEMS

One Semester **1 credit** **Grade 10-12**
Prerequisite: Principles of Manufacturing

Students will learn about the history and current uses of robots and automated systems, programmable circuits, interfacing inputs and outputs, ethical standards in engineering, and the maintenance of these systems. They will also participate in the MATE ROV Competition and FRC.

WELDING I

One Semester **1 credit** **EPSO** **Grade 10-12**
Prerequisite: Principles of Manufacturing with minimum grade of C

Students learn essential skills in cutting and welding, covering safety practices, career research, leadership development, and basic arc welding and thermal cutting techniques.

WELDING II

One Semester **1 credit** **EPSO** **Grade 11-12**
Prerequisite: Welding I with minimum grade of C

Students will enhance their cutting and welding skills through a series of projects, preparing for Entry Level Welder Certification per American Welding Society QC10.

Agriculture, Food, & Natural Resources

Horticulturalists work with plants, applying their knowledge to fruits, vegetables, ornamentals, and non-food crops to maximize their health and growth. Careers include plant pathologists, farmers, biochemists, irrigation specialists, horticulture specialists, landscape designer, and turf managers to just name a few.

Program of Study

Horticulture Science	**Agriscience**	**Principles of Plant Science and Hydroculture**	**SDC Intro to Plant Science**	**Landscaping and Turf Management**	**Work Based Learning: Horticulture**
	CTE Student Organization: National FFA Organization (FFA) ***EPSO: OSHA 10, Statewide Dual Credit***				

AGRISCIENCE

One Semester **1 credit** **Grade 9-11**
This course satisfies third lab science graduation requirement.

This course helps students understand the important role that agricultural science and technology plays in the 21st century. In addition, it serves as the first course for all programs of study in the Agriculture, Food, & Natural Resources cluster. This course counts as a lab science credit toward graduation requirements.

PRINCIPLES OF PLANT SCIENCE AND HYDROCULTURE

One Semester **1 credit** **Grade 10-12**
Prerequisite: Agriscience

This course introduces students to the vast areas of the horticulture industry. Topics include leadership, greenhouse management, garden center operations, floriculture, nursery operations, landscaping, and turfgrass management. An introduction to plant and soil science is included as a necessary foundation.

STATE DUAL CREDIT INTRO TO PLANT SCIENCE

One Semester **1 credit** **EPSO** **Grade 10-12**
Prerequisite: Principles of Plant Science and Hydroculture & Biology 1

Prepares students with interests in higher-level, science-based plant agriculture. Students enrolled in this course will study rigorous standards related to the principles of plant growth, cell structure and functions, heredity and genetics (molecular biology), plant breeding and improvement, hormones and growth regulations, chemical nature of plant life, flower structure and function, seed formation and germination, DNA and biotechnology, and emerging technologies. Students will use scientific investigation to determine a plant problem.

LANDSCAPING AND TURF MANAGEMENT

One Semester **1 credit** **Grade 10-12**
Prerequisite: SDC Intro to Plant Science

This course prepares students for creating beautiful environments for homes and businesses by site analysis and preparation, landscape drawing, plant selection, and installation. Maintenance of healthy attractive landscapes and turf areas will be emphasized.

Architecture & Construction

Individuals pursuing a career in the Architecture and Construction cluster work on new structures, restorations, additions, alterations, and repairs. Careers include architectural and civil drafter or engineer, residential or commercial carpenter, construction worker, electrician, plumber, and painter to just name a few.

Program of Studies

Architectural & Engineering Design	**Architectural & Engineering Design I**	**Architectural & Engineering Design II**	**Architectural & Engineering Design II**	**Work Based Learning: Architectural & Engineering Design**
	CTE Student Organization: Skills USA, TSA ***EPSOs: ACU (AutoCAD Certified User) certification, Dual Credit through NeSCC for DRAF1210 Computer Aided Drafting I and ENGR 1110 Engineering Graphics.***			

Residential & Commercial Construction	**Fundamentals of Construction**	**Residential & Commercial Construction I**	**Residential & Commercial Construction II**	**Construction Practicum**	**Work Based Learning: Residential & Commercial Construction**
	CTE Student Organization: Skills USA ***ESPO: OSHA 10, TCAT Dual Enrollment***				

Mechanical, Electrical, & Plumbing (MEP) Systems	**Fundamentals of Construction**	**MEP Systems**	**Electrical Systems**	**Construction Practicum**	**Work Based Learning: MEP Systems**
	CTE Student Organization: Skills USA ***ESPOs: OSHA 10, Dual Enrollment Credit through NeSCC for ENST 1350 – Industrial Safety and ELEC 1010 – Introduction to Electricity***				

ARCHITECTURAL & ENGINEERING DESIGN I

One Semester **1 credit** **Grade 9-11**
Prerequisite: Credit in Algebra 1

A foundational course for students interested in a variety of engineering and design professions. Students will build foundational skills in sketching, manual drawing, computer aided drawing, and visualization of three-dimensional objects in a two-dimensional environment. Students will conduct a research project to become informed about engineering and architectural career opportunities that peak students' individual interests.

ARCHITECTURAL & ENGINEERING DESIGN II

One Semester **1 credit** **EPSO** **Grade 10-12**
Prerequisite: Architectural & Engineering Design I; minimum grade of B

Students will continue to learn technical drawing standards in dimensioning, sectioning, auxiliary view, architectural floor plan design, bridge design as well as other design projects. Students will create 3D models of a bridge design or an architectural structure. This course includes an engineering research project that will increase student knowledge of careers and practices in engineering and architecture related fields of employment.

ARCHITECTURAL & ENGINEERING DESIGN III

One Semester **1 credit** **EPSO** **Grade 11-12**
Prerequisite: Architectural & Engineering Design II, minimum grade of B

This course introduces leading industrial 3D software such as Solidworks and Revit. Students will initiate and complete a design project that reflects their engineering/architecture/design interests. Students develop a project management guide, create 3D models, and standard working drawings for their project.

FUNDAMENTALS OF CONSTRUCTION

One Semester **1 credit** **EPSO** **Grade 9-11**

This course will introduce students to basic skills and knowledge applicable to all construction trades. Topics covered include safety, construction drawings, site layout, hand and power tools, linear and angular measurements, and application of algebraic and geometric principles to construction problems.

RESIDENTIAL & COMMERCIAL CONSTRUCTION I

One Semester **1 credit** **EPSO** **Grade 10-12**
Prerequisite: Fundamentals of Construction

A course that will introduce students to basic skills and knowledge related to residential and commercial carpentry. Topics covered include wood, metal, and concrete building materials; fasteners; hand and power tools; fabrication based on construction plans; and framing of platform and post-and-beam structures, in both wood and metal. This course gives students an introduction to the skill and knowledge base typically required for apprentice carpenters.

RESIDENTIAL & COMMERCIAL CONSTRUCTION II

One Semester **1 credit** **EPSO** **Grade 10-12**
Prerequisite: Residential & Commercial Construction I; optional TCAT dual enrollment credit

Students will extend their skills and knowledge related to residential and commercial carpentry. Topics covered include stairs, installation and trim of windows and doors, installation and repair of gypsum wallboard, advanced site layout, exterior finish work, thermal and moisture protection, and an introduction to welding. This course gives students a substantial skill and knowledge foundation typically required for apprentice carpenters.

MEP SYSTEMS

One Semester **1 credit** **EPSO** **Grade 10-12**
Prerequisite: Fundamentals of Construction

Prepares students for electrical, plumbing, and HVAC careers by introducing students to the physical principles of these systems and the fundamental skills needed to work with them. Students will be able to follow safety procedures and use tools to perform basic operations with electrical circuits. Students will be able to perform basic operations with plastic piping, including measuring, cutting, and joining pipe.

ELECTRICAL SYSTEMS

One Semester **1 credit** **EPSO** **Grade 10-12**
Prerequisite: MEP Systems; optional NeSCC dual enrollment credits

Prepares students for careers as electricians across a variety of residential and commercial environment. Proficient students will be able to perform operations with device boxes, conduit, raceway systems conductors, and cable. Students will read and interpret the National Electrical Code, drawings, specifications, and diagrams to determine materials and procedures needed to complete a project.

CONSTRUCTION PRACTICUM

One Semester **1 credit** **EPSO** **Grade 11-12**
Prerequisite: Res. and Comm Const 2 and/or Electrical Sys with at least a B in each class. Teacher approval only.

Capstone course providing students the opportunity to apply skills and knowledge learned in previous courses within a professional, working environment. Students learn to refine their skills in problem solving, communication, teamwork, and project management in the completion of on- and off-site construction projects.

Arts, A/V Technology & Communications

Broadly, individuals that work in the AV communications industry manufacture, sell, rent, design, install, integrate, operate, and repair the equipment of audiovisual communications. They are involved in the presentation of sound, video, and data to groups in such venues as corporate boardrooms, hotels, convention centers, classrooms, theme parks, stadiums, and museums. The major activity sectors in the AV communications industry are distributive service firms (AV dealers, rental companies, consultants, designers, and related firms), manufacturers of AV presentations and communications products, and large end-users.

Program of Study

Audio/Visual Production	**A/V Production I**	**A/V Production II**	**A/V Production III**	**Applied Arts Practicum**	**Work Based Learning: A/V Production**
	CTE Student Organization: Future Business Leaders of American (FBLA)				

A/V PRODUCTION I

One Semester **1 credit** **Grade 9-10**

A foundational course for students interested in A/V (audio/visual) production occupations. Proficient students will be able to explain and complete the phases of the production process including pre-production, production, and post-production. Students will establish basic skills in Page 2 operating cameras, basic audio equipment, and other production equipment.

A/V PRODUCTION II

One Semester **1 credit** **Grade 10-12**
Prerequisite: A/V Production I

This course advances technical skill in utilizing industry equipment related to lighting and audio, and it places special emphasis on the research and technical writing involved in planning Page 2 productions. Proficient students will be able to plan, capture, and edit research-based productions of increasing complexity. Students will investigate concerns affecting A/V production businesses, such as ethical and legal issues, technology, funding, and the organization of professional roles in various industries.

A/V PRODUCTION III

One Semester **1 credit** **Grade 11-12**
Prerequisite: A/V Production II with a minimum grade of C

Students in this course will apply knowledge and skills from previous courses in the program of study to create productions both independently and in teams, with the option of participating in a work-based learning experience for additional Page 2 credit. Students will use industry equipment and technology to complete all phases of the production process, including planning, coordinating, capturing, editing, and distributing productions.

APPLIED ARTS PRACTICUM

One Semester **1 credit** **Grade 12**

This is a capstone course where students apply the skills and knowledge learned in previous courses within a professional, working environment. In addition to developing an understanding of the professional and ethical issues encountered by professionals in these careers, students learn to refine their skills in problem solving, research, communication, teamwork, and project management through the completion of a course-long project.

Business, Management & Administration

The business, management and administration career cluster can give you the business skills essential to efficient, productive operations for any company. Professional offices, law firms, and corporate headquarters require bookkeepers, administrative assistants, and office specialists to keep their operations running smoothly. As technology becomes more advanced and businesses grow, the need for staff with expertise in office administration and software is a valuable asset. People with great computer skills will be in demand.

Program of Study

Office Management	**Principles of Office Applications**	**Business Communications**	**Business Management**	**Work Based Learning: Office Management**
	CTE Student Organization: Future Business Leaders of American (FBLA) ***EPSOs: Local Dual Credit NeSCC, optional TCAT Dual Enrollment*** ***Industry Certification: Lean Six Sigma***			

PRINCIPLES OF OFFICE APPLICATIONS

One Semester **1 credit** **EPSO** **Grade 9-11**

Optional TCAT dual enrollment credit

Students will use a variety of computer software and hardware tools; explore the social, business, and ethical issues of using computer technology; and develop skills in word processing, spreadsheet, database, and presentation applications. Students who complete this course have the opportunity to take an articulation exam for college credit.

BUSINESS COMMUNICATIONS

One Semester **1 credit** **Grade 10-12**

Prerequisite: Principles of Office Applications (Computer Applications) with minimum grade of C or Advanced Computer Applications

Students will practice choosing and using appropriate tools for business communications with particular emphasis on electronic media. Though communications activities will have a business focus, all students who intend to continue in post-secondary education will benefit from practice in finding and validating electronic resources, using review and developer tools in Microsoft Word, and using electronic means of communication like email and blogs for professional purposes. Students also use Adobe Illustrator and InDesign to design infographics and illustrations.

BUSINESS MANAGEMENT

One Semester **1 credit** **Grade 10-12**

Prerequisite: Business Communications with minimum grade of C

Students will focus on the development of the planning, organizing, leading, and controlling functions required for the production and delivery of goods and services. This course addresses the management role of utilizing the businesses' resources of employees, equipment, and capital to achieve an organization's goals.

Education & Training

Teaching as a Profession is designed for students interested in becoming an educator. In this program of study, course content covers the components of instruction, teaching strategies, types of assessments, student learning, special populations, educational technology, classroom management, lesson planning, professionalism, and more. Upon completion of this POS, students will have participated in an internship placement and built a professional portfolio in preparation for advanced training as future educators at the postsecondary level.

Program of Study

Teaching as a Profession K-12	**Introduction to Teaching as a Profession**	**Teaching as a Profession I**	**Teaching as a Profession II**	**Teaching as a Profession Practicum**	**Work Based Learning: Teaching as a Profession**
	CTE Student Organization: Family, Career and Community Leaders of America (FCCLA)				

INTRODUCTION TO TEACHING AS A PROFESSION

One Semester **1 credit** **Grade 9-11**

Introduction to Teaching as a Profession is a foundational course in the Teaching as a Profession program of study for students interested in learning more about becoming a teacher, school counselor, trainer, librarian, or speech-language pathologist. Upon completion of this course, proficient students will gain knowledge in the history of education in the United States, careers in education, and the influence of human development on learning. Artifacts will be created for inclusion in a portfolio, which will continue throughout the full sequence of courses.

TEACHING AS A PROFESSION I

One Semester **1 credit** **Grade 10-12**

Prerequisite: Introduction to Teaching as a Profession

This course covers the components of instruction, teaching strategies, types of assessments, student learning, special populations, and educational technology. Students will conduct observations of educators at work and create artifacts for a course portfolio, which will continue with them throughout the program of study. Proficient students will have a fundamental understanding of instructional strategies needed for becoming an educator.

TEACHING AS A PROFESSION II

One Semester **1 credit** **Grade 10-12**

Prerequisite: Teaching as a Profession I; student must provide own transportation to intern sites.

This course covers classroom management, concepts of higher order thinking, differentiating instruction, and strategies of effective classroom planning. Students will demonstrate their skills in laboratory settings while building a course portfolio of work, which will carry with them throughout the program of study.

TEACHING AS A PROFESSION PRACTICUM

One Semester **1 credit** **Grade 11-12**

Prerequisite: Teaching as a Profession II; student must provide own transportation to intern sites.

Teaching as a Profession (TAP) Practicum is a capstone course in the Education and Training career cluster for students interested in applying the knowledge and skills learned in previous courses toward becoming a teacher, school counselor, trainer, librarian, or speech-language pathologist. The course covers classroom professionalism, ethics, policies, communications, and career requirements in education and training fields. In addition, students will complete an internship and continue to create artifacts for their student portfolios. Upon completion of this course, proficient students will be prepared to pursue advanced training at a postsecondary institution.

Health Science

The Health Science Career Cluster is divided into three different pathways: Nursing Services, Therapeutic Services, and Sport and Human Performance. Students can prepare to enter the job market or pursue continuing education in a healthcare field during their high school experience.

Health Science Education is the foundation course for the Health Science Cluster and is a prerequisite for all additional courses. Anatomy & Physiology (A & P) is a required upper-level course for all pathways. A & P is designed to develop an understanding of the structures and functions of the human body, while relating those to knowledge and skills associated with pathophysiology.

Program of Studies

Emergency Services	**Health Science Education**	**Medical Therapeutics**	**Human Anatomy and Physiology**	**Dual Enrollment Emergency Medical Services**
	CTE Student Organization: Future Health Professionals (HOSA) ***EPSOs: Industry Certification – OSHA 10, BLS, NIMS Compliance Courses (IS-5A, ICS-100, ICS-200, IS-700, IS-800); Dual Enrollment - NeSCC***			

Nursing Services	**Health Science Education**	**Medical Therapeutics**	**Human Anatomy and Physiology**	**Nursing Education Honors**
	CTE Student Organization: Future Health Professionals (HOSA) ***EPSOs: Industry Certification – OSHA 10, BLS, CNA***			

Sports and Human Performance	**Health Science Education**	**Rehabilitative Careers**	**Human Anatomy and Physiology**	**Clinical Internship Honors**
	CTE Student Organization: Future Health Professionals (HOSA) ***EPSOs: Industry Certification – OSHA 10, BLS***			

Therapeutic Services	**Health Science Education**	**Medical Therapeutics**	**Human Anatomy and Physiology**	**Clinical Internship Honors OR Pharmacological Science Honors**
	CTE Student Organization: Future Health Professionals (HOSA) ***EPSOs: Industry Certification – OSHA 10, BLS, Pharmacy Tech***			

HEALTH SCIENCE EDUCATION

One Semester **1 credit** **Grade 9-10**

Prerequisite: Minimum grade of C in most recent science course. Students interested in advancing in the Health Science Cluster should have a minimum grade of C to advance.

Health Science Education is the beginning course in the Health Science Cluster. Students will discover the wide variety of career choices available in healthcare and learn the qualities they need to achieve success in a healthcare career choice. The class introduces basic anatomy, legal aspects, infection control, and other related topics.

MEDICAL THERAPEUTICS

One Semester **1 credit** **Grade 10-12**

Prerequisite: Health Science Education with a minimum grade of C

This applied course prepares students for careers in therapeutic services. Proficient students will learn to identify therapeutic careers, assess and report patient health, and understand treatment components. Career examples include anesthesiologists, athletic trainers, audiologists, dental assistants, dermatologists, exercise physiologists, neurologists, nurses, occupational and respiratory therapists, ophthalmologists, pharmacists, physician assistants, surgeons and veterinarians.

REHABILITATION CAREERS

One Semester **1 credit** **Grade 10-12**

Prerequisite: Health Science Education with a minimum grade of C

This course is for students interested in rehabilitation careers in all areas of therapy. Students will demonstrate skills needed for Rehabilitative Careers. Topics addressed will include: anatomy, physiology, diagnosis and treatment of injuries, and other aspects related to health care. Successful students may apply for the clinical course.

DUAL ENROLLMENT BASIC NURSING PRINCIPLES @ SHHS (PENDING BOARD APPROVAL)

One Semester (fall only) **1 credit** **EPSO** **Grade 11**

Prerequisite: Health Science Education with a B or better. Must also take DE Fundamentals of Nursing in the spring. ELECTIVE COURSE ONLY – WILL NOT COUNT TOWARD CLUSTER CONCENTRATOR STATUS

Basic Nursing is a combination of three content areas: Vocational Relations (VR), Nutrition and Diet Therapy, and Geriatric Nursing. Each of these content areas is a basic component of practical nursing.

DUAL ENROLLMENT FUNDAMENTALS OF NURSING @ SHHS (PENDING BOARD APPROVAL)

One Semester (spring only) **1 credit** **EPSO** **Grade 11**

Prerequisite: Health Science Education with a B or better. Must also take DE Basic Nursing Principles in the fall. ELECTIVE COURSE ONLY – WILL NOT COUNT TOWARD CLUSTER CONCENTRATOR STATUS

This course is the foundation for all nursing care and highlights basic nursing concepts and measures from the simple to the complex. The student is guided to formulate his or her identity as a beginning nursing student by a careful correlation of the biological, physical, and social sciences. Emphasis is placed upon the normal as a means of comprehending the abnormal. The comfort, safety, maintenance of health, and recovery of the client will be stressed. The importance of the Practical Nurse as a member of the healthcare team and nursing as a social discipline is stressed. Upon completion of this course, the student should also be able to apply the principles of emergency nursing care. A planned schedule of laboratory experience allows the student the opportunity to practice and demonstrate proficiency prior to the clinical setting.

DUAL ENROLLMENT MEDICAL TERMINOLOGY @ SHHS (PENDING BOARD APPROVAL)

One Semester **1 credit** **EPSO** **Grade 11-12**

Prerequisite: Any 2 classes taken in Health Science POS's. Must have maintained a B average in both classes. ELECTIVE COURSE ONLY – WILL NOT COUNT TOWARD CLUSTER CONCENTRATOR STATUS

Medical terminology is designed to develop a working knowledge of the language of health professions. Students acquire word-building skills by learning prefixes, suffixes, roots, combining forms, and abbreviations. Utilizing a body systems approach, students will define, interpret, and pronounce medical terms relating to structure and function, pathology, diagnosis, clinical procedures, and pharmacology. Students will use problem-solving techniques to assist in developing an understanding of course concepts.

DUAL ENROLLMENT EMERGENCY MEDICAL SERVICES @ SHHS

One Semester (spring only) **2 blocks** **EPSO** **Grade 12**

Prerequisite: Health Science Education, Medical Therapeutics and Anatomy & Physiology with a minimum grade of C. Must be 18 years old within 90 days of course completion. Must submit online application.

This course prepares students for careers in prehospital emergency medicine. Proficient students will learn about EMS careers, workforce safety, legal and ethical guidelines, and apply anatomy and physiology to injuries. The course includes 60 hours of clinical ride time with Washington County/Johnson City EMS on weekends. After completion, students can take the National EMT certification exam and apply for a Tennessee EMT License. Students will earn 16 credit hours from Northeast State.

PHARMACOLOGICAL SCIENCES HONORS

One Semester **1 credit** **EPSO** **Grade 11-12**

Prerequisite: Health Science Education, Medical Therapeutics and Anatomy and Physiology with a minimum grade of a B. Application required. Must submit online application.

This course prepares students for the Pharmacy Technician Certification Board exam. It covers the roles and responsibilities of healthcare workers in pharmacies and includes supervised clinical experiences alongside classroom learning. Proficiency in mathematical skills is also required for various pharmaceutical calculations.

NURSING EDUCATION HONORS

One Semester **1 credit** **EPSO** **Grade 11-12**

Prerequisite: Health Science Education, Medical Therapeutics and Anatomy and Physiology with a minimum grade of a B. Must be able to stay at the clinical site until 6pm on Wednesdays. Paper application required.

This course offers supervised clinical experience and classroom learning to prepare students for the state CNA exam. Students gain hands-on experience, making them job-ready, while the knowledge acquired benefits those pursuing higher education in health-related fields. See counselor or teacher for application.

CLINICAL INTERNSHIP HONORS

One Semester **1 credit** **EPSO** **Grade 11-12**

Prerequisite: Health Science Education, Medical Therapeutics and Anatomy and Physiology with a minimum grade of a B. Rehabilitation Careers recommended. Paper application required.

This course offers real-world application of skills from previous health science courses. The Clinical Internship allows placements in athletic training centers, rehab facilities, medical offices, and hospitals, providing opportunities to observe and learn about healthcare professionals in clinical settings. See counselor or teacher for application.

Hospitality and Tourism

The Hospitality and Tourism cluster offers the Culinary Arts pathway to give students the employment skills required in the food service industry. Students will learn customer service, sanitation and safety, use of commercial food service equipment, and food preparation.

Program of Studies

Culinary Arts	**Culinary Arts I**	**Culinary Arts II**	**Culinary Arts III**	**Culinary Arts IV**	**Work Based Learning: Culinary Arts**
	CTE Student Organization: Family, Career & Community Leaders of America (FCCLA) ***EPSO: ServSafe Manger National Certification, Food Handler ServSafe***				

CULINARY ARTS I

One Semester **1 credit** **Grade 9-11**

Culinary Arts I equips students with the foundational knowledge and skills to pursue careers in the culinary field as a personal chef, caterer, executive chef, and food and beverage manager. Upon completion of this course, proficient students will have knowledge in the components of commercial kitchen safety and sanitation, history of the foodservice industry, careers, nutrition, recipe basics, proper kitchen tools and equipment, and kitchen staples.

CULINARY ARTS II

One Semester **1 credit** **Grade 10-12**

Prerequisite: Culinary Arts I with a minimum grade of B

Culinary Arts II is an applied-knowledge course to prepare students for careers in the culinary field as a personal chef, caterer, executive chef, and food and beverage manager. Upon completion of this course, proficient students will have an understating of commercial kitchen safety and sanitation, menu planning, food presentation, purchasing and inventory, preparation skills, cooking principles, and food preparation. Pro Start Certification available to those who qualify.

CULINARY ARTS III

One Semester **1 credit** **EPSO** **Grade 11-12**

Prerequisite: Culinary Arts II with a minimum grade of B

Culinary Arts III is an advanced course intended to further equip students with the skills and knowledge needed to pursue a variety of careers in the culinary field. Upon completion of the course, students will be proficient in components of commercial kitchen safety and sanitation, dining room service, food preparation and presentation, bakeshop preparation skills and equipment, and advanced cooking principles. Students will gain experience in commercial food production and service operations, while preparing for further training at the postsecondary level.

CULINARY ARTS IV

One Semester **1 credit** **Grade 11-12**

Prerequisite: Culinary Arts III with a minimum grade of B

Culinary Arts IV is the capstone course in the Culinary Arts program of study intended to prepare students for careers such as banquet cook, catering assistant, event planning assistant, and many other entry-level food and beverage industry career paths. Course content reinforces the components of commercial kitchen safety and sanitation, food presentation, bakeshop preparation skills, sustainability practices, professionalism, and business opportunities.

Human Services

This cluster prepares students for careers that improve quality of life of others and promotes safe, healthy communities. Workers in human services better our lives by tending to our psychological, social, and physical needs. Careers include hairstylists or cosmetologists, child and family social workers, child care provider, health educators, and marriage and family therapists just to name a few. The Human Services cluster offers 2 different pathways.

Human and Social Science workers deal with family and individual needs. They help those who are unable to help themselves. Social health workers may work in homeless shelters, help with relief and counseling for victims of natural disasters, care for elderly, among many others. Students enrolled in this course work directly with our Topper Tots program.

Cosmetology workers assist individuals with their personal appearance, including shampooing, cutting, coloring, and styling hair; giving manicures, pedicures, and facial treatments.

If you have a strong desire to help others and want to make a difference in someone's life, then a career in Human Services may be for you. Individuals who show patience, understanding, and caring in their dealing with others are highly valued by employers.

Program of Studies

Human and Social Sciences	**Introduction to Human Studies**	**Lifespan Development**	**Family Studies**	**Work Based Learning: Human & Social Sciences**
	CTE Student Organization: Family, Career & Community Leaders of America (FCCLA) ***EPSO: Local Dual Credit NeSCC and TECTA (Tennessee Early Childhood Training Alliance)***			

Cosmetology	**Cosmetology 1**	**Cosmetology 2**	**Cosmetology 3**	**Work Based Learning: Cosmetology**
	CTE Student Organization: SkillsUSA ***EPSO: OSHA 10***			

INTRODUCTION TO HUMAN STUDIES

One Semester **1 credit** **Grade 9-10**

A foundational course for students interested in becoming a public advocate, social worker, dietician, nutritionist, counselor, or community volunteer. This course covers the human needs, overview of social services, career investigation, mental health, and communications. Lab component required in the course that includes: training and hands on experience working with children in the SHHS Topper Tots childcare program.

LIFESPAN DEVELOPMENT

One Semester **1 credit** **Grade 10-11**
Prerequisite: Introduction to Human Studies with minimum of C; can also count as a social studies elective towards a humanities focus

Lifespan Development builds basic knowledge in human growth and development. The course standards include developmental theory, principles of growth, behavior of children from conception through adolescence, adult development and aging, and death and dying. Lab component required in the course that includes: training and hands on experience working with children in the SHHS Topper Tots childcare program.

FAMILY STUDIES

One Semester **1 credit** **EPSO** **Grade 11-12**
Prerequisite: Lifespan Development with minimum of B

Family Studies is an applied knowledge course that examines the diversity and evolving structure of the modern family. Course standards focus on the demographic, historical, and social changes of interpersonal relationships, as well as parenting, and the effect of stressors on the family. Lab component required in the course that includes: training and hands on experience working with children in the SHHS Topper Tots childcare program.

COSMETOLOGY 1

One Semester **1 credit** **Grade 9-11**
Prerequisite: None – Due to limited class enrollment, seniors may not register for this class. Supply kit required

The first level of cosmetology that prepares students with work-related skills for advancement into the Design Principles of Cosmetology course. Content provides students the opportunity to acquire basic fundamental skills in both theory and practical applications of leadership and interpersonal skill development. Content stresses safety, environmental issues, and protection of the public and designers as integrated with principles of hair design, nail structure, and cosmetic procedures. Laboratory facilities and experiences simulate those found in the cosmetology industry.

COSMETOLOGY 2

One Semester **1 credit** **Grade 10-12**
Prerequisite: Cosmetology 1 & Teacher approval. Students must maintain a B average; supply kit required.

The second level of cosmetology prepares students for work-related skills and advancement into the Chemistry of Cosmetology course. Content provides students the opportunity to acquire knowledge and skills in both theory and practical application. Advanced knowledge and skills in hair design, nail artistry, and cosmetic applications will be enhanced in a laboratory setting, which duplicates cosmetology industry standards. Upon completion and acquisition of 300 hours, students are eligible to take the Tennessee Board of Cosmetology Shampoo examination for a Tennessee Shampoo Technician License.

COSMETOLOGY 3

One Semester **1 credit** **EPSO** **Grade 10-12**
Prerequisite: Cosmetology 2 & Teacher approval. Students must maintain a B average

The advanced level of cosmetology prepares students to perform work-related services using chemicals in the cosmetology industry. Content provides students the opportunity to acquire foundation skills in both theory and practical applications. Laboratory facilities and experiences will be used to simulate cosmetology work experiences. Students completing this portion of the course of cosmetology will acquire the necessary hours to transfer to a post-secondary course of study to complete the hours needed to be eligible to take the Tennessee State Board of Cosmetology examination for the Tennessee Cosmetology License. Upon completion and acquisition of 300 hours, students are eligible to take the Tennessee State Board of Cosmetology Shampooing examination for a Shampoo Technician License.

Information Technology

Information Technology careers involve the design, development, support and management of hardware, software, multimedia and systems integration services. The IT industry is a dynamic and entrepreneurial working environment that has a revolutionary impact on the economy and society. In addition to careers in the IT industry, IT careers are available in every sector of the economy from Financial Services to Medical Services, Business to Engineering and Environmental Services. Anyone preparing for an IT career should have a solid grounding in math and science.

Program of Study

<table>
<tr><td rowspan="2">Cybersecurity</td><td>Computer Science Foundations</td><td>Cybersecurity I</td><td>Cybersecurity II</td></tr>
<tr><td colspan="3">CTE Student Organization: Skills USA</td></tr>
</table>

COMPUTER SCIENCE FOUNDATIONS

One Semester **1 credit** **Grade 9-11**

Prerequisite: None; satisfies computer science requirement; counts as CTE elective and substitutes for fourth math credit or third lab science.

The foundational course in the Cybersecurity program of study that exposes students to various information technology occupations. Proficient students will be able to describe various information technology (IT) occupations and professional organizations. Moreover, they will be able to demonstrate logical thought processes and discuss the social, legal, and ethical issues encountered in the IT profession.

CYBERSECURITY I

One Semester **1 credit** **Grade 10-12**

Prerequisite: Computer Science Foundations and Algebra 1; satisfies computer science requirement; counts as CTE elective and substitutes for fourth math credit or third lab science.

Students will learn the basic concepts of cybersecurity with an emphasis on security integration, application of cybersecurity practices and devices, ethics, and best practices management. The fundamental skills in this course cover both in house and external threats to network security and design, how to enforce network level security policies, and how to safeguard an organization's information.

CYBERSECURITY II

One Semester **1 credit** **Grade 10-12**

Prerequisite: Cybersecurity I; satisfies computer science requirement; counts as CTE elective and substitutes for fourth math credit or third lab science.

An advanced course that challenges students to develop advanced skills in concepts and terminology of cybersecurity. This course builds on previous concepts introduced in Cybersecurity I while expanding the content to include malware threats, cryptography, wireless technologies, and organizational security.

Law, Public Safety, Corrections, & Security

This cluster will prepare students for careers in law enforcement, crime scene analysis, forensic science, public safety, and criminal justice. Courses emphasize procedures and laws governing the application of justice in the United States, from constitutional rights to crisis scenario management to the elements of criminal investigations. Careers include crime lab technician, police officer, security officer, and corrections officer.

Program of Study

Criminal Justice & Correction Services	**Criminal Justice I**	**Criminal Justice II**	**Criminal Justice III**	**Work Based Learning: Criminal Justice**
	CTE Student Organization: SkillsUSA ***EPSO: TCAT Dual Enrollment***			

CRIMINAL JUSTICE I

One Semester **1 credit** **Grade 9-11**

Students learn how the law enforcement, legal, and correctional systems interact with each other in the United States. Proficient students will understand the context of local, state, and federal laws, the concepts of crime control and the judicial process, and the importance of communications and professionalism in law enforcement.

CRIMINAL JUSTICE II

One Semester **1 credit** **Grade 10-12**
Prerequisite: Criminal Justice I

In this course, current issues will be researched in the context of local, state, and federal laws. Investigative skills will be developed in the areas of drug use, incident documentation and basic crime scene investigation. Students will understand the importance of communications and professionalism in law enforcement.

CRIMINAL JUSTICE III

One Semester **1 credit** **Grade 10-12**
Prerequisite: Criminal Justice II; optional TCAT dual enrollment credit

This course will equip students with the knowledge and skills to be successful in the sciences of criminal investigations. Students will learn terminology and investigation skills related to the crime scene, aspects of criminal behavior, and applications of the scientific inquiry to solve crimes. Students will obtain and analyze evidence through simulated crime scenes and evaluation of case studies. Upon completion of the course students will be able to identify careers in forensic science and criminology, summarize the laws that govern the application of forensic science and draw key connections between the history of the forensic science system and the modern legal system.

Marketing

Marketing, sales, and service workers help businesses sell products. Managers oversee and direct all the advertising, marketing, sales, and public relations responsibilities. This cluster will prepare students for careers in planning, managing, and preforming marketing activities to reach organizational objectives. Individuals with great communication and computer skills are highly valued by employers.

Program of Study

Marketing Management	**Introduction to Business & Marketing**	**Marketing & Management I: Principles**	**Advertising & Public Relations**
	CTE Student Organization: Future Business Leaders of America (FBLA)		

INTRODUCTION TO BUSINESS & MARKETING

One Semester **1 credit** **Grade 9-10**

Introduction to Business and Marketing is an introductory course designed to give students an overview of the Business Management and Administration, Marketing, and Finance career clusters. The course helps students prepare for the growing complexities of the business world by examining basic principles of business, marketing, and finance in addition to exploring key aspects of leadership, ethical and social responsibilities, and careers. Students' academic skills in communications, mathematics, and economics are reinforced with activities modeled in the context of business topics. Upon completion of this course, proficient students will be equipped with the foundational skills to succeed in any of the Business, Marketing, or Finance programs of study and will be prepared to make an informed decision regarding which pathways they would like to pursue in high school.

MARKETING AND MANAGEMENT I: PRINCIPLES

One Semester **1 credit** **Grade 10-12**

Prerequisite: Introduction to Business & Marketing; this course satisfies the economics credit for graduation

Principles focuses on the study of marketing concepts and their practical application. Students will examine risks and challenges marketers face to establish a competitive edge. Subject matter includes economics, marketing foundations/functions, and human resource leadership development. Skills in communication, mathematics, economics and psychology are reinforced in this course.

ADVERTISING AND PUBLIC RELATIONS

One Semester **1 credit** **Grade 10-12**

Prerequisite: Marketing and Management I: Principles

This course emphasizes concepts and strategies associated with the dynamic and changing means of communication in order to promote products, services, ideas and/or images. Students will be encouraged to examine this field from the viewpoints of the creative staff, business person and consumer.

STEM (Science, Technology, Engineering & Mathematics)

Program of Study

STEM	**Principles of Engineering and Technology**	**Digital Electronics**	**Robotics & Automated Systems**	**Work Based Learning: Technology**
	CTE Student Organization: Skills USA ***EPSO: TCAT Dual Enrollment, FESTO Intro to Exploring Electricity, FESTO Intro to Exploratory Electronics, FESTO Intro to Process Engineering, FESTO Industry 4.0***			

PRINCIPLES OF ENGINEERING & TECHNOLOGY

One Semester **1 credit** **Grade 9-11**

Optional TCAT dual enrollment credit

Principles of Engineering and Technology is a foundational course in the STEM cluster for students interested in learning more about careers in engineering and technology. This course covers basic skills required for engineering and technology fields of study. Upon completion of this course, proficient students are able to identify and explain the steps in the engineering design process. They can evaluate an existing engineering design, use fundamental sketching and engineering drawing techniques, complete simple design projects using the engineering design process, and effectively communicate design solutions to others.

DIGITAL ELECTRONICS

One Semester **1 credit** **Grade 9-12**

Prerequisite: Principles of Engineering & Technology

Digital Electronics is intended to provide students with an introduction to the basic components of digital electronic systems and equip them with the ability to use these components to design more complex digital systems. Proficient students will be able to (1) describe basic functions of digital components (including gates, flip flops, counters, and other devices upon which larger systems are designed), (2) use these devices as building blocks to design larger, more complex circuits, (3) implement these circuits using programmable devices, and (4) effectively communicate designs and systems. Students develop additional skill in technical documentation when operating and troubleshooting circuits. Upon completion of the Digital Electronics course, proficient students will be able to design a complex digital system and communicate their designs through a variety of media.

ROBOTICS & AUTOMATED SYSTEMS

One Semester **1 credit** **Grade 10-12**

Robotics & Automated Systems is an applied course for students who wish to explore how robots and automated systems are used in industry. Upon completion of this course, proficient students will understand the historical and current uses of robots and automated systems; programmable circuits, interfacing both inputs and outputs; ethical standards for engineering and technology professions; and testing and maintenance of robots and automated systems. Note: Standards in this course are presented sequentially for students' learning progression; however, instructors may tailor the order of course standards to their specifications. Students are expected to use engineering notebooks to document procedures, design ideas, and other notes for all projects throughout the course. Students will also be able to compete in MATE ROV Competition and FRC

Transportation, Distribution, & Logistics

Students will learn the basic skills needed to gain employment as a maintenance and light repair technician. Students will learn automotive preventative maintenance and servicing, electrical system diagnosis, replacing brakes, and steering and suspension components. Hours earned in the Maintenance and Light Repair courses may be used toward meeting National Automotive Technicians Education Foundation (NATEF) standards and Tennessee Department of Education standards. Upon completing all the Maintenance and Light Repair courses, students may enter automotive service industry as an ASE Certified MLR Technician. Advanced auto classes will alternate each school year to allow students to take all the areas. Classes prepare students for the A.S.E. test.

Program of Study

Automotive Maintenance and Light Repair	**Maintenance & Light Repair I**	**Maintenance & Light Repair II**	**Maintenance & Light Repair III**	**Maintenance & Light Repair IV**	**Work Based Learning: Maintenance & Light Repair**
	CTE Student Organization: Skills USA ***EPSO: Industry Certification: Automotive Service Excellence Student Certification*** ***ASE Entry-Level Certification Program, TCAT Dual Enrollment***				

MAINTENANCE AND LIGHT REPAIR I

One Semester **1 credit** **EPSO** **Grade 9-11**

The Maintenance and Light Repair I (MLR I) course prepares students for entry into Maintenance and Light Repair II. Students explore career opportunities and requirements of a professional service technician. Content emphasizes beginning transportation service skills and workplace success skills. Students study safety, tools, equipment, shop operations, basic engine fundamentals, and basic technician skills.

MAINTENANCE AND LIGHT REPAIR II

One Semester **1 credit** **EPSO** **Grade 10-12**
Prerequisite: Maintenance & Light Repair I

The Maintenance and Light Repair II (MLR II) course prepares students for entry into Maintenance and Light Repair III. Students study and service suspension and steering systems and brake systems.

MAINTENANCE AND LIGHT REPAIR III

One Semester **1 credit** **EPSO** **Grade 10-12**
Prerequisite: Maintenance & Light Repair II

The Maintenance and Light Repair III (MLR III) course prepares students for entry into Maintenance and Light Repair IV. Students study automotive general electrical systems, starting and charging systems, batteries, lighting, and electrical accessories.

MAINTENANCE AND LIGHT REPAIR IV

One Semester **1 credit** **EPSO** **Grade 11-12**
Prerequisite: Maintenance & Light Repair I, II & III & Teacher Approval

The Maintenance and Light Repair IV (MLR IV) course prepares students for entry into the automotive workforce or into post-secondary training. Students study and service automotive HVAC systems, engine performance systems, automatic and manual transmission/transaxle systems, and practice workplace soft skills.

Special Programs

BALLAD BRIDGE

One Semester **1 credit** **Grade 11-12**
Must submit online application

This semester-long job shadowing program, offered in partnership with Ballad Health, provides students with an immersive experience across various careers in the medical field. Students will rotate through 15 different healthcare placements, gaining firsthand exposure to a wide array of roles, including the emergency room, same-day surgery, oncology, and more. This unique opportunity is designed to help students explore potential career paths within the healthcare industry and make informed decisions about their future. No previous medical courses or experience is necessary.

PEER TUTORING

One Semester **1 credit** **Grade 11-12**
Must submit online application and have a minimum GPA of 3.0, 90% attendance rate in previous term, and acceptable discipline record.

Peer tutoring is an opportunity for students who are excited and willing to help other students. Students who are interested in peer tutoring will be assigned to working in one of the following settings: CDC (comprehensive developmental class) classroom, 1:1 in the general education setting (academic class), 1:1 or small group in an elective or CTE class (Culinary, PE, Visual Arts, Theater, etc.). Student preferences as to what setting they would like to be placed will be taken into consideration. A reflective journal will be completed and turned into supervising teacher each 9 weeks.

STUDENT WORKER

One Semester **No credit** **Grade 12**
Must submit online application and have a minimum GPA of 3.0, 90% attendance rate in previous term, and acceptable discipline record. Student must be on track to graduate.

Student Worker is a non-credit course offered to seniors, which may affect graduation or athletic eligibility. Students will be placed in high-need areas within the school to provide assistance to staff. Parent will be notified that a request for a non-credit class is being made.

TOPPER TECH TEAM (T^3)

One Semester **1 credit** **Grade 11-12**
Must submit online application and have a minimum GPA of 3.0, 90% attendance rate in previous term, and acceptable discipline record.

Students will assist daily with, but not limited to, Chromebook issues, Canvas, Google Docs, and instructional opportunities. Reflective journal entry to be completed and submitted to supervising teacher.

WORK BASED LEARNING

One Semester **1 credit** **Grade 11-12**
Must submit online application

Work Based Learning: Career Practicum is a capstone course intended to provide students with opportunities to apply the skills and knowledge learned in previous CTE and general education courses within a professional work environment. The course allows students to earn high school credit for select models of work-based learning, which allow students to interact with industry professionals in order to extend and deepen classroom work and support the development of postsecondary and career readiness knowledge and skills.

4/6 Year Plan Checklist

	GRADE 9	CR
1	English 1	
2	Math	
3	Science	
4		
5		
6		
7		
8		
	TOTAL CREDITS	

	GRADE 10	CR
1	English 2	
2	Math	
3	Science	
4		
5		
6		
7		
8		
	TOTAL CREDITS	

	GRADE 11	CR
1	English 3	
2	Math	
3	Science	
4	U. S. History	
5		
6		
7		
8		
	TOTAL CREDITS	

	GRADE 12	CR
1	English 4	
2	Math	
3	U. S. Government/Economics	
4		
5		
6		
7		
8		
	TOTAL CREDITS	

Graduation Requirements

English	4 credits	
Math (at least 3 years) - Algebra 1, Geometry, Algebra 2, & one additional math	4 credits	
Science – Biology, Chemistry or Physics, & one other Lab Science	3 credits	
U. S. History	1 credit	
U. S. Government	.5 credit	
Economics	.5 credit	
World History & Geography (9^{TH}-10^{TH})	1 credit	
Lifetime Wellness	1 credit	
Physical Education	.5 credit	
Personal Finance	.5 credit	

Fine Arts	1 credit	
Elective Focus Area: AP/DE, CTE, Fine Arts, HPEX, Humanities, Math/Science, ROTC, STEM	3 credits	
World Language – Must be two sessions of the same language	2 credits	
Computer Science		
Other Electives	6 credits	
TOTAL	28 credits	
Focus Area:		
ACT		
Civics Exam		
40 Hours Community Service		

Post-Secondary Plans: 5th year _____ 6th year _____

SCIENCE HILL HIGH SCHOOL GRADUATION STATUS CHECK SHEET

Use this form to check off the credits you have earned and the credits you are working on now. This will help you when selecting your courses for the next year. If you have any questions about graduation requirements or how to use this chart, please see your counselor.

Science Hill High School Graduation Requirements – 28 Credits

English – 4 credits	☐ English 1 ☐ English 2 ☐ English 3 ☐ English 4	2 credits of same **World Language**	☐ ☐
Math – 4 credits Algebra 1, Algebra 2, Geometry, & one additional math (Must enroll in a math course at least 3 years.)	☐ Algebra 1 (grade taken___) ☐ Geometry (grade taken___) ☐ Algebra 2 (grade taken___) ☐ (grade taken___) ☐ (grade taken___) ☐ (grade taken___) ☐ (grade taken___) ☐ (grade taken___)	**Elective Focus: 3** **from the following** 3 CTE credits in a POS, 3 add. Science & Math credits (above req), 3 humanities credits, 3 add. fine arts, 3 AP/DE credits, 3 add. JROTC, 2 add. PE credits + Human A&P	☐ ☐ ☐
Science – 3 credits Biology, Chemistry or Physics, & 1 Lab Science	☐ Biology ☐ Chemistry or Physics ☐ Other Lab Science	**World Language/Fine Arts Waiver** ☐ **Must complete additional 3 credit elective focus below**	
Social Studies – 3 credits	☐ World History & Geog. ☐ US History & Geog. ☐ Government (.5 credit) ☐ Economics (.5 credit)	Waiver: 3 CTE credits in a POS, 3 add. Science & Math credits (above req), 3 humanities credits, 3 add. fine arts, 3 AP/DE credits, 3 add. JROTC, 2 add. PE credits + Human A&P	☐ ☐ ☐
Computer Science	☐	**Electives** Minimum of 6 additional elective credits required for graduation	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Wellness – 1 credit	☐		
P.E. – 1/2 credit **PE Waiver**	☐ PE ½ credit ☐ PE Waiver		
Finance – 1/2 credit	☐		
Fine Art – 1 credit (Visual Art, Theatre, Ceramics, Chorus, Band, or Orchestra)	☐		
JROTC – 2 credits 1 additional credit	☐ Wellness & PE sub ☐ Government & Finance sub		

Sr. Form/Fee _____ **FAFSA _____** **Resume _____** **Parchment _____**		**40 Hrs Community Service** **Civics Test** **ACT/SAT**	☐ Completed ☐ Completed ☐ Completed