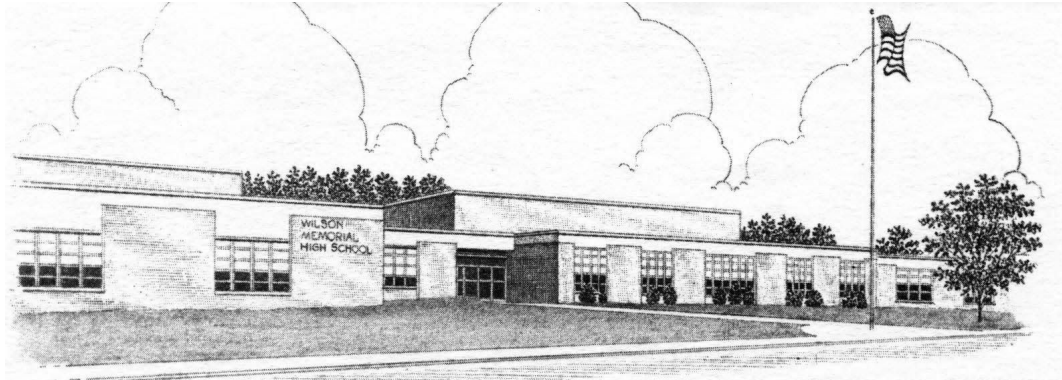


# PROGRAM OF STUDIES

## *COURSE DESCRIPTION GUIDE*

2020 – 2021



WILSON MEMORIAL HIGH SCHOOL  
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Ms. Mikhal M. Salzberg, Counselor for students last name F-M  
Mrs. Jennifer H. Lawhorn, Counselor for students last name N-Z

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# GENERAL INFORMATION

This **Program of Studies: Course Description Guide** provides a brief description of all classes currently offered at Wilson Memorial High School and the prerequisites for each. To meet the changing needs of students, society, and the future, classes may be added, dropped, or changed. Classes are open to students without regard to race, color, religion, sex, age, or national origin.

## **Career Pathways**

Every course and every enriching activity offered at WMHS is linked to a career choice. Content of courses is aligned with real-world applications. Expectations for performance, both academic and social, are aligned with those expectations in the workforce.

## **Earning Credits**

Credits toward graduation requirements are earned by successful completion of classes. One-period or block, half-year-long classes allow students to earn one credit. Students may earn four credits each semester for a total of eight credits each year. Year-long courses completed at Valley Vocational Technical Center or through the Employment Training Program earn three credits. Students are sometimes allowed to retake classes to increase their learning and improve their grades, but they do not receive an additional unit of credit if they have already passed the class.

## **Grades, Advanced Placement, Dual Enrollment, Career Pathways Consortium**

Students' grades are reported every nine weeks by report cards; progress is also reported at the four and a half-week interval. Each credit is weighted equally on a 4.0 scale except Advanced Placement, Dual Enrollment, Concurrent Enrollment, and Shenandoah Valley Governor's School classes, which are weighted on a 5.0 scale. Students in Advanced Placement classes are strongly encouraged to take the AP examinations in those courses. The student and family pay the costs of the examination. Dual Enrollment means that a student can receive both college and high school credit for college-level courses at a reduced tuition rate. Concurrent Enrollment means that a student can be both enrolled in local college and in high school at the same time. Concurrent Enrollment classes are taken through the local college at the state tuition rate. Additional fees are associated with these classes. The Career Pathways Academy is a program offered through the Career Pathways Consortium that allows a student to be released for half a day senior year to begin taking courses in a career/technical program at BRCC.

## **Virtual Virginia**

This unique program provides access to online Advanced Placement, world languages, and elective courses for focused, self-motivated students who work well with minimal supervision. Students may earn both high school and college credit for work completed online. There are deadlines for applying and additional fees for these courses. Students and parents should refer to the Virtual Virginia website at [www.virtualvirginia.org](http://www.virtualvirginia.org) for more information.

## **Dual Enrollment**

Dual Enrollment courses allow students the opportunity to achieve college credit while still in high school. These courses do require additional fees. Please refer to page 18 for a list of Dual Enrollment course offerings.

## **Choosing Courses and Alternates**

School personnel will work with students to help them choose courses that meet their needs, abilities, interests, future goals as well as diploma requirements. Each student is also asked to select "alternates" which may be used to solve scheduling conflicts.

## **Student and Parent Involvement**

All parents are encouraged to be actively involved in planning their student's program of study. Parents (and students) should review their student's transcript yearly. Parents with questions and concerns should contact their student's counselor promptly.

## **Changes in Registration**

Students must make course selections before final grades are reported and before standardized testing has been completed. Sometimes these final grades and testing results indicate that the student's choice is not in his/her best interest. School personnel may make alterations following careful review of the final grades and test scores.

Final recommendations of teachers are reviewed and results of SOL testing may be used in scheduling students. Changes will be made if the student does not meet prerequisites. Students and parents who have questions about these changes should contact a guidance counselor.

### **Register Carefully for Desired Classes**

Students should make sincere efforts to select their courses and alternates carefully. Schedule requests will be reviewed in the spring. No schedule changes will be made unless there is an academic conflict.

### **Prerequisites and appeals**

Not all courses have prerequisites, but students and parents are asked to look carefully at course prerequisites before registering for certain classes. Prerequisites are intended to communicate necessary preparation for success in a class. If students do not meet the prerequisite for a desired class, they are encouraged to communicate with a counselor and decide if an appeal for exception is in the best interest of the student. The final appeal process will be communicated through the building principal.

### **Career & Technical Completers/Fine Arts Completers**

All students are encouraged to complete a coordinated program of career & technical courses or fine/performing arts courses. Students completing a prescribed sequence of courses in a particular concentration are recognized with distinctive tassels awarded at the end of the year awards assembly and worn at graduation.

## **GRADUATION REQUIREMENTS**

A Virginia high school diploma tells admission officers at colleges, universities, and career and technical schools that the student is ready for the rigors of post-secondary education. It also tells potential employers that the graduate possesses the reading, writing, and computational skills required for success in the workplace. The resources listed here explain Virginia's graduation requirements and the many options now available to students for earning a high school diploma. You also will find information on how students can get even more out of their high school experience by accepting the challenge of advanced courses.

Diploma options:

- o Advanced Studies Diploma
- o Standard Diploma
- o Other Diplomas

Students need to select the diploma program that is in line with their post-secondary plans. There is a variety of seals affixed to diplomas indicating completion of selected programs or attainment of certain grade point averages. To earn a verified credit, a student must pass the class and the end-of-course Standards of Learning (SOL) test. Certain career and technical certifications and other standardized tests may be substituted for certain verified credits. Students should see their counselors for more specific information.

***For Students Entering 9th Grade in 2011-12 through 2017-18***

Advanced Studies Diploma Course Requirements (8 VAC 20-131-50.C)			
Discipline Area	Standard Credits: effective with first-time ninth graders in 2003-2004 through 2010-2011	Standard Credits: effective with first-time ninth graders in 2011-2012 and beyond	Verified Credits - effective with ninth graders in 2000-2001 and beyond
English	4	4	2
Mathematics	4	4	2
Laboratory Science	4	4	2
History & Social Sciences	4	4	2
Foreign Languages	3	3	
Health & Physical Education	2	2	
Fine Arts or Career & Technical Education	1	1	
Economics and Personal Finance		1	
<a href="#">Electives</a>	2	3	
Student Selected Test			1
<b>Total</b>	<b>24</b>	<b>26</b>	<b>9</b>

Standard Diploma Course Requirements (8 VAC 20-131-50.B)			
Discipline Area	Standard Credits: effective with first-time ninth graders in 2003-2004 through 2010-2011	Standard Credits: effective with first-time ninth graders in 2011-2012 and beyond	Verified Credits: effective for first-time ninth graders in 2003-2004 and beyond
English	4	4	2
Mathematics	3	3	1
Laboratory Science	3	3	1
History & Social Sciences	3	3	1
Health & Physical Education	2	2	
Fine Arts or Career & Technical Education	1		
Foreign Language, Fine Arts or Career & Technical Education		2	
Economics and Personal Finance		1	
<a href="#">Electives</a>	6	4	
Student Selected Test			1
<b>Total</b>	<b>22</b>	<b>22</b>	<b>6</b>

*Credit accommodations are not available for the Advanced Studies Diploma.*

## *For Students Entering 9th Grade in 2018-19 and Beyond*

Virginia's revised graduation requirements maintain high expectations for learning in English, math, science and history/social science while reducing the number of Standards of Learning (SOL) tests students must pass to earn a high school diploma. The new standards also implement the "Profile of a Virginia Graduate," which describes the knowledge, skills, attributes and experiences identified by employers, higher education and the state Board of Education as critical for future success.

### **Profile of a Virginia Graduate**

A student meeting the Profile of a Virginia Graduate has achieved the commonwealth's high academic standards and graduates with workplace skills, a sense of community and civic responsibility and a career plan aligned with his or her interests and experiences.

#### **The Five C's**

In preparing students to meet the Profile of a Virginia Graduate, schools are required to ensure that students develop the following competencies known as the "Five C's":

- Critical thinking
- Creative thinking
- Communication
- Collaboration
- Citizenship

#### **Career Exploration and Planning**

The career-planning component of the Profile of a Virginia Graduate provides an opportunity for students to learn more about the employment options and career paths they first explored in elementary and middle school. While there is no specific career-related activity that a student must experience (such as an internship or job-shadowing assignment) to earn a diploma, school divisions must provide opportunities for students to learn about workplace expectations and career options in their own communities and elsewhere. By reducing the number of SOL tests students must pass to earn a diploma, the new standards increase flexibility for schools to expand work-based and service-learning programs that promote college, career and civic readiness.

#### **Standard and Verified Credits**

The new graduation requirements are effective with students entering the ninth grade in the fall of 2018 (class of 2022). The number of standard credits for a Standard Diploma and Advanced Studies Diploma remain the same but the number of required verified credits — earned by passing a course in the content area and the associated end-of-course assessment — is reduced to five (one each in English reading, English writing, mathematics, science and history/social science) for both diplomas.

#### **Standard Diploma: First-time ninth graders 2018-2019 and beyond**

<b>Subject Area</b>	<b>Standard Credits</b>	<b>Verified Credits</b>
English	4	2
Mathematics	3	1
Laboratory Science	3	1
History and Social Sciences	3	1
Health and P.E.	2	0
World Language, Fine Arts or C.T.E.	2	0
Economics & Personal Finance	1	0
Electives	4	0
Student Selected Test	0	0
<b>Total Credits</b>	<b>22</b>	<b>5</b>

### Advanced Studies Diploma: First-time ninth graders 2018-2019 and beyond

Subject Area	Standard Credits	Verified Credits
English	4	2
Mathematics	4	1
Laboratory Science	4	1
History and Social Sciences	4	1
Health and P.E.	2	0
World Language	3	0
Fine Arts or C.T.E.	1	0
Economics & Personal Finance	1	0
Electives	3	0
Total Credits	26	5

### **Other Diplomas & Certificates**

#### **Applied Studies**

Available to students with disabilities who complete the requirements of their IEP and who do not meet the requirements for other diplomas.

A **Certificate of Program Completion** shall be awarded to students who earn the needed standard units of credit for graduation but fail to earn the required verified credits.

## **Awards for Exemplary Student Performance**

Students meeting specific requirements for graduation and demonstrating exemplary performance may receive diploma seals for recognition. VDOE makes available to local school divisions the following seals:

**Governor's Seal** – Awarded to students who complete the requirements for an Advanced Studies Diploma with an average grade of "B" or better, and successfully complete college-level coursework that will earn the student at least nine transferable college credits in Advanced Placement (AP), International Baccalaureate (IB), Cambridge, or dual enrollment courses.

**Board of Education Seal** – Awarded to students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an average grade of "A" beginning with the ninth-grade class of 2006-2007 and beyond.

**Board of Education's Career & Technical Education Seal** – Awarded to students who:

- o Earn a Standard or Advanced Studies Diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain a "B" or better average in those courses
- o OR pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade or professional association
- o OR acquire a professional license in that career and technical education field from the Commonwealth of Virginia.

The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.

**Board of Education's Advanced Mathematics & Technology Seal** – Awarded to students who earn either a Standard or Advanced Studies Diploma and satisfy all of the mathematics requirements for the Advanced Studies Diploma (four units of credit including Algebra II; two verified units of credit) with a "B" average or better; and either:

- o Pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association
- o OR acquire a professional license in a career and technical education field from the Commonwealth of Virginia
- o OR pass an examination approved by the board that confers college-level credit in a technology or computer science area.

The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.

**Board of Education's Excellence in Civics Education Seal** – Awarded to students who meet each of the following four criteria:

- o Satisfy the requirement to earn a Standard Diploma or an Advanced Studies Diploma
- o Complete Virginia & United States History and Virginia & United States Government courses with a grade of "B" or higher
- o Complete 50 hours of voluntary participation in community service or extracurricular activities, such as volunteering for a charitable or religious organization that provides services to the poor, sick or less fortunate; participating in Boy Scouts, Girl Scouts or similar youth organizations; participating in Junior Reserve Officer Training Corps (JROTC); participating in political campaigns, government internships, Boys State, Girls State or Model General Assembly; and participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation will be deemed to have met this community service requirement.
- o Have good attendance and no disciplinary infractions as determined by local school board policies.

Local school divisions may award other diploma seals or awards for exceptional academic, CTE, citizenship or other exemplary performance in accordance with criteria defined by the local school board. The design, production and use of those seals are the responsibility of the local school boards awarding the seal.

### **Early College Scholars**

The Early College Scholars program allows eligible high school students to earn at least 15 hours of transferable college credit while completing the requirements for an Advanced Studies Diploma or an Advanced Technical Diploma. The result is a more productive senior year and a substantial reduction in college tuition. Students earning a college degree in seven semesters instead of eight can save an average of \$5,000 in expenses.

To qualify for the Early College Scholars program, a student must:

- o Have a "B" average or better;
- o Be pursuing an Advanced Studies Diploma; and
- o Take and complete college-level course work (i.e., Advanced Placement and/or Dual Enrollment) that will earn at least 15 transferable college credits.

Early College Scholars are supported by Virtual Virginia and the Commonwealth College Course Collaborative. Virtual Virginia provides statewide access to college-level courses while the Commonwealth College Course Collaborative defines the subjects high school students can complete and receive college degree credit from participating public and private colleges and universities.

### **Early College Scholars Agreement**

Participating students sign an Early College Scholars Agreement (PDF), which is also signed by the student's parents or guardians, principal, and school counselor. Students who meet the terms of the agreement are recognized as Early College Scholars and receive a certificate of recognition from the Governor.



# General Notes

All students attending Augusta County Public Schools may participate in education programs and activities, including but not limited to health and physical education, music, vocational and technical education. Educational programs and services will be designed to meet the varying needs of all students and will not discriminate against any individual for reasons of race, color, national origin, religion, age, disability, or gender. Students and school personnel are protected against [retaliation](#).

The following individuals have been designated to handle inquiries regarding the [non-discrimination policies](#)

**Title IX Coordinator**  
Ms. Jill R. Martin  
Executive Director of Personnel  
18 Government Center Lane  
PO Box 960  
Verona, VA 24482  
(540) 245-5107

**Section 504 Coordinator**  
Douglas W. Shifflett, Jr., Ed.D  
Deputy Superintendent  
18 Government Center Lane  
PO Box 960  
Verona, VA 24482  
(540) 245-5108

We are an equal opportunity employer who fully and actively supports equal access for all people regardless of race, color, religion, gender, age, national origin, or disability. No student will be denied access to any educational opportunity for financial reasons. Fee waivers and forms for installment payments are available in the Main Office or from the Bookkeeper. The right to appeal any requirement for admission to any class is the right of every student. Please contact the principal.

## ENGLISH (Language Arts)

All English classes systematically study vocabulary through the use of vocabulary workbooks, literature, and parallel studies. Outside reading is required of all students. English classes often make use of the school's computer laboratories.

### **English 9A**

***Prerequisite: Students who have passed the 8th Grade Reading and Writing SOL's and received a C- or better in Language Arts 8.***

Students read extensively from a variety of literary genres including poetry, novels, drama, and nonfiction. Short stories are used as the primary genre for the study of plot, setting, character, theme, and symbol. Students receive the foundation for literary analysis and numerous literary terms are introduced. Critical reading and thinking skills are developed. Outside reading includes both short and long selections, as well as novels. Rigorous vocabulary study is included with special attention given to preparation for the critical reading and writing portions of the Scholastic Aptitude Test (SAT) of the College Board.

The writing process is emphasized with attention given to a variety of prewriting, drafting, and revision activities. Students write five-paragraph narrative and expository essays applying functional grammar techniques. The persuasive essay is introduced. The writing skills necessary for success in a college environment are emphasized. This level of English is intended for students earning an advanced studies diploma.

### **English 9**

Students read and study a variety of literary genres including poetry, novels, drama, and nonfiction. Short stories are used for study of plot, setting, character, theme and symbol. Critical reading and thinking skills are developed with emphasis on reading comprehension and reasoning. The basic reading skills necessary for success on all SOL tests are emphasized.

The writing process is emphasized with attention given to a variety of pre-writing, drafting, and revision activities. Students write five-paragraph narrative and expository essays. The persuasive essay is introduced. The writing skills necessary for success on the writing SOL test are emphasized. Vocabulary study is included. This level of English is intended for students earning a standard diploma.

### **English 9 YR (Academy)**

In this yearlong course, students focus primarily on reading skills and vocabulary development. Reading comprehension and critical thinking skills are emphasized through a variety of fiction and non-fiction texts that include the following genres: short stories, drama, epic, novels, poetry, media messages, and general essays. Vocabulary and root word studies are paired with reading units to prepare students for all reading based SOL testing.

Students enrolled in the yearlong English 9 course will also take the Composition 9 course concurrently. Enrollment into the yearlong program is based on recommendation from Language Arts 8 teacher, as well as scores on previous Reading and Writing SOL tests. This level of English is intended for students earning a standard diploma.

### **Composition 9 YR (Academy)**

In this yearlong course, students focus primarily on grammar skills and the foundational writing process. Students apply communication and vocabulary skills to produce a variety of writing forms that include expository, narrative, persuasive, argumentative, and analysis. Research components are included within several writing assignments. Grammar studies are paired with specific writing units and assignments to prepare students for all writing based SOL testing.

Students enrolled in the yearlong Composition 9 course will also take the English 9 course concurrently. Enrollment into the yearlong program is based on recommendation from Language Arts 8 teacher, as well as scores on previous Reading and Writing SOL tests. This level of English is intended for students earning a standard diploma.

### **English 10AA**

#### ***Prerequisite: Successful completion of English 9A***

English 10AA is an accelerated course, which requires additional reading and writing, and is geared toward, but not limited to a student who will be taking English 11AA and AP English.

Literary genres studied include the short story, the novel, drama, non-fiction and poetry. Emphasis is on literary analysis both long and short selections from each genre. Students read extensively from a variety of long and short selections from a variety of eras and cultures. Critical reading and thinking skills are emphasized.

Students write frequently, both in class and outside class. Emphasis is given to expository, persuasive and analytical literary essays. Traditional grammar, composition, and editing skills are emphasized. Rigorous vocabulary study is included. Students are encouraged to take the Preliminary Scholastic Aptitude Test (PSAT) in October of their ninth grade year. This level of English is intended for students earning an advanced studies diploma.

### **English 10A**

#### ***Prerequisite: Successful completion of English 9A***

Literary genres studied include the short story, the novel, drama, non-fiction, and poetry. Emphasis is on literary analysis of both long and short selections from each genre. Students read extensively from a variety of long and short selections from world literature. Critical reading and thinking skills are emphasized.

Students write frequently, both in class and outside class. Emphasis is given to persuasive and analytical literary essays. Traditional grammar, composition, and editing skills are emphasized. Rigorous vocabulary study is included. Students are encouraged to take the Preliminary Scholastic Aptitude Test (PSAT) in October of their ninth grade year. This level of English is intended for students earning an advanced studies diploma.

### **English 10**

Literary genres studied include the short story, the novel, drama, non-fiction, and poetry. Emphasis is on literary analysis of both long and short selections from each genre. Students read extensively from a variety of long and short selections from world literature. Critical reading and thinking skills are emphasized.

Students write frequently, both in class and outside class. Vocabulary study is included with special attention given to preparation for end of course reading and writing SOL test taken at the conclusion of English 11. This level of English is intended for students earning a standard diploma.

### **English 10 YR (Academy)**

In this yearlong course, students focus primarily on reading skills and vocabulary development with a sustained emphasis on comparing fiction and non-fiction texts. Continued reading comprehension and critical thinking skills are emphasized through a variety of genres that include short stories, drama, legend, novels, poetry, media messages, and general essays. Vocabulary and root word studies are paired with reading units to prepare students for all reading based SOL testing.

Students enrolled in the yearlong English 10 course will also take the Composition 10 course concurrently. Enrollment into the yearlong program is based on course performance and teacher recommendation from English 9. This level of English is intended for students earning a standard diploma.

### **Composition 10 YR (Academy)**

In this yearlong course, students focus primarily on grammar skills and the foundational writing process. Students continue to apply communication and vocabulary skills to produce a variety of writing forms that include expository, narrative, persuasive, argumentative, and analysis. Research components are included within several writing assignments. Grammar studies are paired with specific writing units and assignments to prepare students for all writing based SOL testing.

Students enrolled in the yearlong Composition 10 course will also take the English 10 course concurrently. Enrollment into the yearlong program is based on course performance and teacher recommendation from Composition 9. This level of English is intended for students earning a standard diploma.

### **English 11AA**

***Prerequisite: Successful completion of English 10AA or English 10A. Grades for the summer assignments must score a minimum of 70% C- in order to remain enrolled in the course.***

English 11AA is an accelerated course that requires students to think, read, and write on an in-depth level in preparation for Advanced Placement English 12. This is a yearlong preparatory course that focuses on an intensive survey of American literature, spanning from the Pre-Colonial era to Postmodernism. (A few selections of British texts are also included.)

The study of American literature directly correlates with the content and curriculum in AP United States History. (Students are strongly encouraged to consider taking both 11AA and AP U.S. History courses simultaneously.)

Students are expected to enter this course with a present confidence in their independent reading, writing, and study skills. Rigorous daily reading assignments typically fall within the range of 50 – 100 pages in preparation for class discussions. Inquisitive reading skills are essential for success with the classic literary texts.

Timely completion of all summer assignments is required. These initial assignments are designed to give students a glimpse of the major components and what should be expected throughout the duration of the course. Each assignment is tailored specifically as a mandatory prerequisite to English 11AA; therefore, students must be able to complete each assignment by set due dates and meet minimum score criteria in order to secure their enrollment for the upcoming school year. This level of English is intended for students earning an advanced studies diploma.

### **English 11A**

***Prerequisite: Successful completion of English 10A***

Selections in American literature from the short story, the novel, poetry, non-fiction, and drama are incorporated into a chronological study with an emphasis on literary analysis, critical thinking and reasoning skills. Students read both short and long works independently. Rigorous vocabulary study is included with particular emphasis on those skills measured by the Scholastic Aptitude Test (SAT) of the College Board. Students are expected to take the Preliminary Scholastic Aptitude Test (PSAT) in October of their ninth or tenth grade year.

Students write frequently, both in class and outside class. Emphasis is placed on expository, persuasive, and analytical literary essays. A formal research paper is written. Emphasis is placed on both primary and secondary research culminating in a literary research paper. All students must pass both of these SOL tests to earn a high school diploma. This level English is intended for students earning an advanced studies diploma.

## English 11

Selections in American literature from the short story, the novel, poetry and drama are incorporated into a chronological study with emphasis on reading comprehension, critical thinking and reasoning skills.

Students write frequently, in class with some necessary outside course work. Students practice writing five-paragraph expository, persuasive and narrative essays in preparation for the writing SOL test. Vocabulary knowledge, language study, and reading comprehension are emphasized in preparation for the reading and writing end of course SOL test that is taken at the conclusion of English 11. All students must pass both of these SOL tests to earn a high school diploma. This level English is intended for students earning a standard diploma

## Advanced Placement English Literature and Composition (Grade 12)

**Prerequisite: Successful completion of English 11AA**

Advanced Placement Senior English is a college-level literature course and requires a very strong foundation in English. The course prepares students for the College Board's Advanced Placement English Literature and Composition Examination administered annually in May. It challenges students to analyze, interpret, and evaluate literature critically and independently, and requires extensive reading in poetry and the dramatic and narrative genres.

*Criteria for placement in Advanced Placement English 12:*

- Additional fees are associated with taking this course.
- Minimum grade of C- in English 11AA and recommendation of teacher.
- Timely completion of all summer assignments at a level commensurate with college-level work is required.
- Student and/or parent attendance at the Spring AA/AP meeting is required.
- Students withdrawing from any advanced placement course after the first 6 weeks will earn a grade WF on their transcript.

This level English is intended for students earning an advanced studies diploma.

## Dual Enrollment College Composition (Grade 12)

**Prerequisite: Successful completion of English 11AA or English 11A and the End-of-Course Reading and Writing SOL tests. Completion and submission before the end of their junior year of a ACPS Dual Enrollment Application, a BRCC Application and completion of the BRCC Placement Test or PSAT/SAT qualifying scores is required to be considered eligible for this course.**

College Composition I introduces students to critical thinking and the fundamentals of academic writing. Through the writing process, students refine topics; develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. Writing activities will include exposition and argumentation with at least one research essay. College Composition II continues to develop writing with increased emphasis on critical essays, argumentation, and research, developing these competencies through the examination of a range of texts about the human experience. It requires students to locate, evaluate, integrate, and document sources and effectively edit for style and usage. This is a dual enrollment course through Blue Ridge Community College and meets the English 12 graduation requirement. Students must meet the benchmark scores on the BRCC Placement Test to be eligible to enroll in the class. Students who are successful will earn 6 potentially transferable college credits from BRCC.

*Criteria for placement in Dual Enrollment College Composition*

- Additional fees are associated with taking this course.
- Minimum Reading PSAT score 390 or SAT score of 500. Students not meeting this requirement may meet it by making a satisfactory score on the English Placement Test at BRCC.
- Student and/or parent attendance at the Spring AA/AP/DE meeting is required.
- Students withdrawing from any advanced placement course after the first 6 weeks will earn a grade WF on their transcript.

This level English is intended for students earning an advanced studies diploma.

## **English 12A**

***Prerequisite: Successful completion of English 11A and the End-of-Course English 11 Reading and Writing SOL tests.***

A chronological approach to the study of British literature includes reading selections in poetry, drama, the novel and short story. In-depth analysis of major works relates literature to history. Students frequently write expository, persuasive and literary essays with emphasis on refinement of writing skills and writing style. Critical thinking and reasoning skills are emphasized. Rigorous vocabulary and word study are included. Students participate in both primary and secondary research using a variety of media including electronic sources.

This level English is intended for students earning an advanced studies diploma.

## **English 12**

A chronological approach to the study of British literature includes reading selections in poetry, drama, the novel and short story. In-depth analysis of major works related to literature to history. Students frequently write expository, persuasive and literary essays with emphasis on refinement of writing skills and writing style. Critical thinking and reasoning skills are emphasized. Vocabulary and word study are included. Students complete a research paper using a variety of media including electronic sources.

## **English Elective- Speech/Drama I**

***Prerequisite: Speech/Drama I is open to ALL students***

Speech/Drama I is a performance-oriented course in which students will be introduced to basic acting techniques, basic design (set, costume, makeup and lighting) and production concepts for play production. Students will experiment with improvisation and pantomime. Students will begin to explore character with an emphasis on character development and analysis. Students will begin to explore and interpret text for multiple meanings and the playwright's intent. Students will work on a project designed to take a script to the stage demonstrating mastery of Speech/Drama I concepts. Students will be required to perform and memorize monologues, duets, and scenes from plays to be performed for an audience. Students will also explore History of Theatre. Students enrolled in this course should be prepared to perform.

## **English Elective- Speech/Drama II**

***Prerequisite: Speech/Drama I***

Speech/Drama II is a performance-oriented course in which students continue to build on the concepts introduced in Theatre Arts I of acting, design, and production. They will conceptualize and realize their artistic interpretations in various fields of design, such as sets, costumes, makeup and lighting. Students will develop their acting techniques in improvisation, and informal and formal productions. Students will continue to develop a deeper understanding of character by applying concepts of character analysis and development using textual interpretations, historic and cultural influences and playwright's intent. Students begin to develop an understanding of directing by interpreting dramatic texts. Students will be required to perform and memorize monologues, duets, and scenes from plays to be performed for an audience. Students will take on more responsibilities for play production. Throughout the course students will be encourage to apply their knowledge and practical experience in extracurricular productions. Students will work on a project designed to take a script to the stage demonstrating mastery of Speech/Dramal and II concepts.

## **English Elective- Speech/Drama III**

***Prerequisite: Speech/Drama I and II***

Speech/Drama III is a performance-oriented course in which students will continue to build on concepts introduced and developed in Speech/Drama I and II of acting, design, production, character development and directing. Students will begin to explore a study into the elements of playwriting and will develop their own scripts. Students will continue to explore and interpret text for multiple meanings and the playwright's intent, as well as, play structure. Students will conceptually take a script from its inception to a full production. They will also compare and integrate into these productions art forms such as dance, music, visual arts, and multimedia when possible. Students will be required to perform and memorize monologues, duets, and scenes from plays to be performed for an audience. Students at this level may have opportunities to explore independent projects in acting, directing, playwriting and design. Students will work on a project designed to take a script to the stage demonstrating mastery of Speech/Drama I, II and III concepts. Throughout the course students will be encourage to apply their knowledge and practical experience in extracurricular productions.

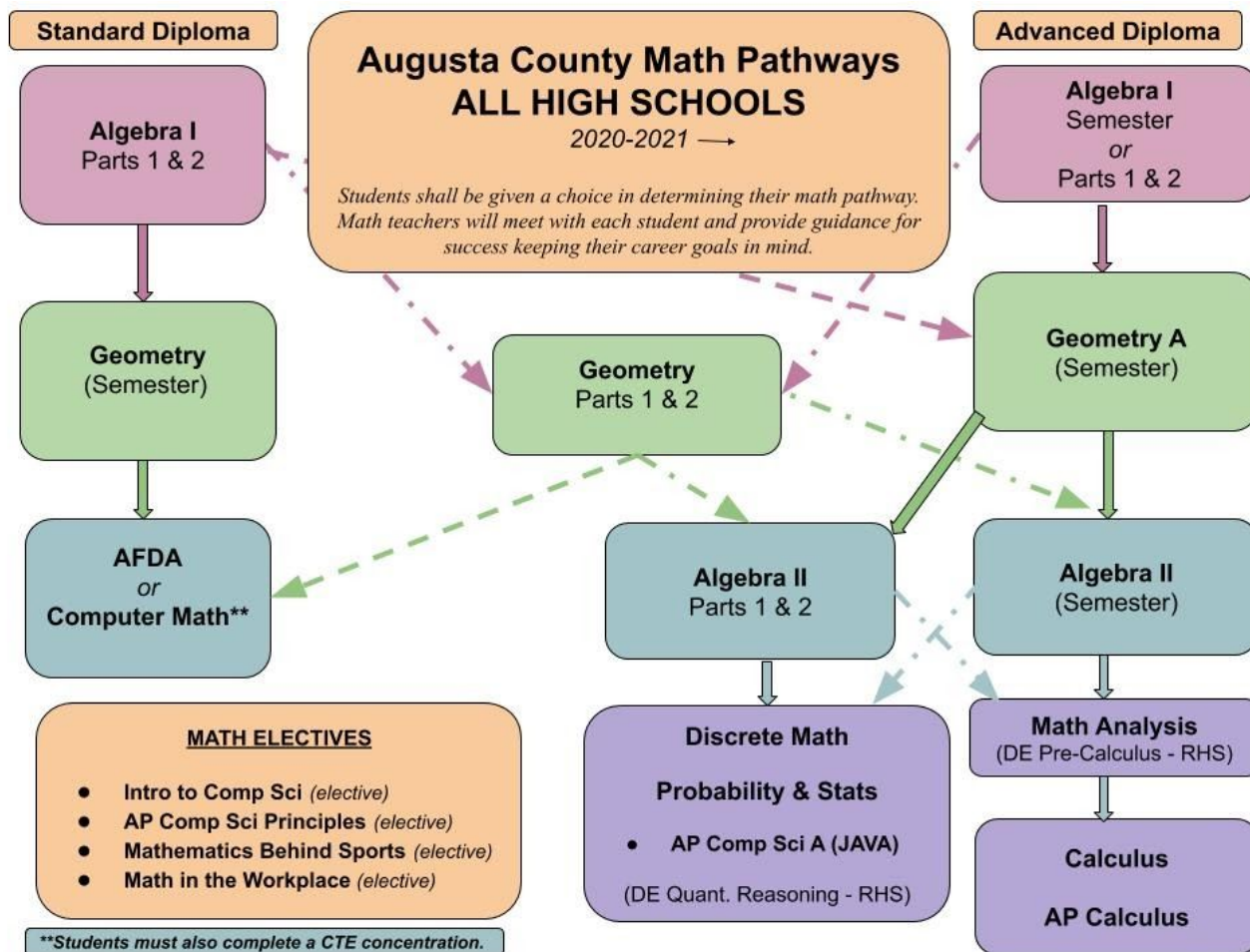
**English Elective- Speech/Drama IV**

**Prerequisite: Speech/Drama I, II, and III**

Speech/Drama IV is a performance-oriented course in which students will continue to build on and refine concepts introduced and developed in Speech/Drama I, II, and III of acting, design, production, character development, directing, and playwriting. In this course, students will be encouraged to explore, develop, and create individual projects that may focus on one or more areas of special interest. These individual projects, performances, or presentations may showcase students’ interests and talents. Students may also have opportunities to direct a one-act play for competition, create a portfolio of performance work, create a portfolio in design (set, lighting, costume, make-up, etc...), or work with community theatre production company. Students at this level may also choose to do an in depth research project of their choice. Students will be required to perform and memorize monologues, duets, and scenes from plays to be performed for an audience. Students will work on a project designed to take a script to the stage demonstrating mastery of Speech/Drama I, II, III, and IV concepts. Throughout the course students will be encourage to apply their knowledge and practical experience in extracurricular productions.

*Fine Arts Completer:* Students with three credits in Speech/Drama will be recognized as a Fine Arts Completer at graduation and will wear a special tassel denoting their achievement.

## MATHEMATICS



The ability to use math to solve problems is an essential skill for success in most careers of today and is predicted to be critical for the future. Knowledge of math is often a “gatekeeper” for progress in careers and acceptance into further educational opportunities. Students must complete a minimum of three credits in mathematics to earn a Standard Diploma and four credits to earn an Advanced Studies Diploma.

### **Semester Courses: Accelerated Algebra I, Semester Geometry, Semester Algebra II**

All students will be scheduled into Parts classes (Part I and Part II) for Algebra I, Geometry, and Algebra II. Once instructors have completed recommendations, selected students will be invited to enroll in semester classes. Criteria used by instructors for these invitations will include, but are not limited to, scores on previous math SOL examinations, final course grades, and the student's ability to handle advanced rigor and pacing. For the Accelerated Algebra I course, only rising ninth grade students meeting selected criteria will be invited to participate. Students receiving an invitation to enroll in a semester course will need to return a signed parental permission form indicating a desire to either accept or decline the invitation. Parents and guardians with questions about the invitation process may speak with the Principal or respective counselor.

#### **Accelerated Algebra I**

This course is strictly designed for advanced students in 9th grade who are capable of a more rigorous course at an accelerated pace. Algebra is the study of different sets of numbers and their properties. The student will solve linear equations and inequalities with graphs and applications. Students will study relations, functions and their graphs, and polynomials. Students will evaluate algebraic and rational expressions and investigate statistics. They will perform operations on and factor polynomials and solve quadratic equations and systems of equations. Use of the graphing calculator will be incorporated when appropriate.

#### **Geometry**

Geometry deals with points, lines, plane figures, and solids. Properties, measurements, and relationships are examined through algebraic problem-solving, formal and informal proofs, and compass constructions. This course is designed for advanced students who are capable of a more rigorous course at an accelerated pace

#### **Algebra II**

This course is designed for advanced students who are capable of a more rigorous course at an accelerated pace. Basic algebra problem-solving skills are expanded, especially concerning polynomial products and factors, solving nonlinear equations, and rational expressions and functions. New areas of study include theory of polynomial equations, analytic geometry, conic sections, exponential and logarithmic functions, and sequences and series.

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#### **Algebra I, Part I and Part II**

Algebra I Part I and Algebra I Part II spread the Algebra I course over a two semester period. Students seeking to fulfill college entrance requirements for two years of algebra should note that colleges consider the Part 1 and Part 2 courses equivalent to only one year of algebra.

*It is recommended that students complete Algebra I Part I with at least a C- to go on to Algebra I Part II.*

#### **Geometry, Part I and Part II**

##### **Prerequisites: Completion of Algebra I Parts I and II**

Geometry Part I and Geometry Part II spread the Geometry course over a two semester period. Part I introduces the language of geometry, reasoning, proofs, congruent triangles, parallel lines, and quadrilaterals. Part II includes similarity of figures, right triangles, circles, area and volume of polygons, coordinate geometry, and transformations.

Students seeking to fulfill college entrance requirements for two years of math should note that colleges consider Part I and Part II courses equivalent to only one year of geometry. *It is recommended that students complete Geometry Part I with at least a C- to go on the Geometry Part II.*

#### **Algebra II/Trigonometry, Part I and Part II**

##### **Prerequisites: Completion of Algebra I and Geometry**

These courses are designed for the student capable of doing upper level mathematics, but who needs to move more slowly through the material to learn it well. After completing Algebra II/Trig. Part I and Part II, the student will have completed the same content as Adv. Algebra II/Trigonometry but will have earned 2 credits. Effective with students beginning 9th grade in fall of 2016, Algebra II part II will count as an elective credit. Students pursuing an advanced diploma will need an additional math credit to satisfy the state graduation requirements for an advanced diploma. *It is recommended that students complete Algebra II/Trig Part I with at least a C- to go on to Algebra II/Trig Part II.*

### **Algebra, Functions, and Data Analysis (AFDA)**

***Prerequisites: Completion of Algebra I and Geometry is recommended***

Within the context of mathematical modeling and data analysis, students will study functions and their behaviors, systems of inequalities, probability, experimental design and implementation, and analysis of data. Data will be generated by practical applications arising from science, business, and finance. Students will solve problems that require the formulation of linear, quadratic, exponential, or logarithmic equations or a system of equations. Through the investigation of mathematical models and interpretation/analysis of data from real life situations, students will strengthen conceptual understandings in mathematics and further develop connections between algebra and statistics.

### **Computer Math (Grade Level: 11-12)**

***Prerequisite: Successful completion of Algebra I and Geometry***

Computer Math is a hands-on class in which students will learn basic programming skills, as well as how to use the formulas in a spreadsheet. Students will also learn basic robot programming (including, but not limited to rolling, lighting up, beeping, and use of sensors), as well as gain familiarity with practical applications of spreadsheets and data analysis. This class will fulfill the third mathematics graduation requirement for the standard diploma, provided the student has completed an approved state Career and Technical Education course sequence. \*Advanced Diploma students may take this course for elective credit.

### **Discrete Math/Probability and Statistics**

***Prerequisites: Completion of Algebra II/Trigonometry or Math Analysis***

Discrete math and statistics presents topics in elementary probability, statistics, and discrete mathematics with an emphasis on understanding and applying these topics to real-life problems. The course will emphasize everyday use of these topics through a problem-solving and real-world application approach.

### **Math Analysis**

***Prerequisites: Completion of Algebra I, Geometry, and Algebra II-Trigonometry with at least a C average is recommended***

Presents a modern unified study of algebra, analytic geometry, trigonometry, and introductory calculus with emphasis on functions and applications. This course is intended for students who have a thorough knowledge of concepts considered basic to Algebra II and have had some exposure to trigonometry. The content of this course serves as a preparation for the student to enter into a calculus course.

### **Calculus**

***Prerequisite: Successful completion of Math Analysis with a C average. Math Teacher recommendation is strongly encouraged***

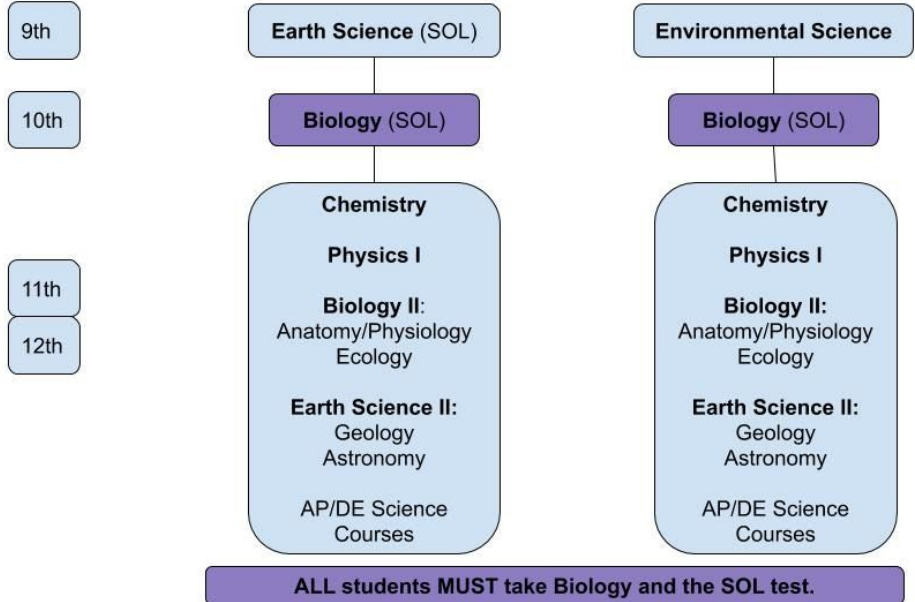
Topics include limits, derivatives and integrals of algebraic and transcendental functions, continuity, applications of derivatives to related rates, maxima and minima, curve sketching, integration formulas, applications of the definite integral, and methods of integration.



# SCIENCE

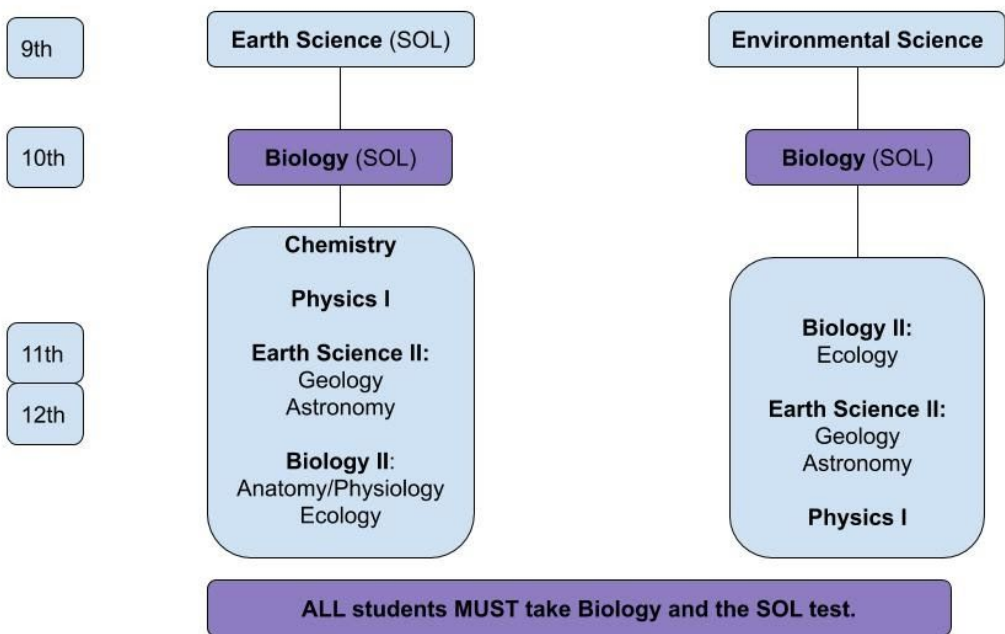
## Augusta County Science Course Pathways

### Advanced Diploma - Three Disciplines of Science (4 credits)



## Augusta County Science Course Pathways

### Standard Diploma - Two Disciplines of Science (3 credits)



## **Earth Science**

Earth Science covers four basic areas: geology, meteorology, oceanography, and astronomy. Concepts basic to the understanding of the composition of the earth, the processes that occur on the earth and the earth's place in the universe are stressed. Laboratory activities, demonstrations, and written activities are used to introduce or reinforce these concepts. A main objective of the course is to relate the processes that are shaping the earth to students' daily lives.

## **Earth Science II – Geology**

This course will be partitioned into three broad categories: population dynamics, plate tectonics and geology, and Earth's resources and energy. The student will gain an appreciation and understanding of the stress that we as humans put on our Earth to meet our growing population demands. We will examine resources, including minerals and rocks that we obtain from the Earth and will also discuss sustainability of those resources. Each student will have an in-depth knowledge of the theory of plate tectonics by the end of the course and will know the local geology of the Shenandoah Valley and the Blue Ridge Mountains.

## **Environmental Science**

This introductory science course integrates the study of numerous components of our environment, including the human impact on our planet. The focus is on scientific inquiry, the physical world, the living environment, resource conservation, humans' impact on the environment, and legal and civic responsibility. Students will collect data and analyze it through laboratory experiences and field work. Students will collaborate with the community to provide diverse points of view about the management of natural resources, and offer a variety of learning experiences and career education opportunities.

## **Biology**

Biology is a laboratory-oriented course that provides students with the basic concepts of life science. Students receive first-hand experience with all forms of life and life processes. Emphasis is placed on observation and respect for living things. The content relates biology to students' everyday experiences and integrates process activities that are enjoyable and meaningful.

## **Biology II - Anatomy/Physiology**

***Prerequisites: Successful completion of Biology I and recommended completion of Chemistry***

This rigorous course is designed to meet the academic needs of students interested in learning more about the human body and how it functions. As a result, this course is highly recommended for those students that are interested in the various health fields. In this course, the student will develop a working knowledge of human anatomy and physiology with particular emphasis on the biological and chemical processes found within the body. This will be achieved through the use of laboratory experiences and projects designed to explore and reinforce the concepts associated with the various biological systems of the body. *Due to the nature of this course, a strong background in biology and chemistry is highly recommended.*

## **Biology II - Ecology**

***Prerequisites: Successful completion of Biology I***

Laboratories, outdoor experiences, audiovisual materials, and individual and group work are used. The objective of this course is to relate how the student's actions can affect the quality of the environment that surrounds them. Nature, recycling, pollution, environmental awareness is presented.

## **Chemistry I**

***Prerequisites: Successful completion of Algebra I, Geometry background recommended***

Chemistry is a laboratory oriented course that develops a student's critical thinking skills through the use of the scientific method and problem-solving abilities. This challenging course provides students with a sound introduction to basic chemical principles through a detailed study of matter and its interactions and is recommended for all college bound students. A well-developed mathematics background is necessary to develop and work with the concepts related to atomic structure, the periodic table, gases, acid-base chemistry, oxidation-reduction, equilibrium, nuclear chemistry, and organic chemistry. As a result, a strong foundation in Algebra is highly recommended.

## **Physics I**

**Prerequisite:** *Algebra I required, Geometry background recommended, and an interest in math based science*

Physics is designed for students in grades eleven and twelve who have completed and passed Algebra I. A well-developed mathematics background is necessary to develop and work with the fundamental principles of mechanics, relativity, electricity, waves, magnetism, and nuclear physics, through laboratory and class investigation.

## **AP Biology**

**Prerequisites:** *A strong interest in science and successful completion of Biology I and Chemistry*

AP Biology is designed to enable students to develop advanced inquiry and reasoning skills, such as designing a plan for collecting data, analyzing data, applying mathematical routines, and connecting concepts in and across domains. The result will be a readiness for the study of advanced topics in subsequent college courses.

# **SOCIAL STUDIES**

World Geography or World History shall be required for all ninth or tenth grade students. Either World History from 1500 or World History and Geography to 1500 may be taken to meet the Advanced Studies Diploma social studies requirement. Virginia-U.S. History shall be required for eleventh grade students, and Virginia - U.S. Government shall be required for all twelfth grade students.

## **World Geography**

World Geography is the study of the political, cultural, physical, and economic aspects of the countries of the world. Various regions of the world are studied to develop an understanding of the differences and similarities that exist among them. Emphasis is placed on topography, climate, natural resources, industries, major cities, agriculture, cultural influences, governments, religion and education. Students consider the relationships between people and places while asking and answering geographic questions. This course also includes map studies and map-making.

## **World History from 1500**

The standards for this course cover history and geography from the late Middle Ages (1500 A.D.) to the present with emphasis on Western Europe. Geographic influences on history are explored with increasing attention given to political boundaries that developed with the evolution of nation-states. The people and events of the nineteenth and twentieth centuries are emphasized for their strong connections to contemporary issues. Using texts, maps, pictures, stories, diagrams, charts, and a variety of chronological, inquiry/research, and technological skills, students develop competence in chronological thinking, historical comprehension, and historical analysis. This challenging course is required for students earning an Advanced Studies Diploma.

## **World History and Geography to 1500**

This course examines the rise and fall of civilization from prehistoric time to the Middle Ages /Renaissance. Through detailed study, students will explore how political, social, and economic interaction impact different civilizations. Furthermore, students will survey how trade and communication affect the spread of culture. This course utilizes a variety of resources to explore these concepts including: Primary sources, Artifacts, Geographic tools, and Secondary material.

## **Virginia-United States History**

United States and Virginia History offers a chronological approach to the study of our nation's story. Students examine the cumulative events that have created what is, without question, the unrivaled superpower of the day. Virginia Standards of Learning provide a very precise and detailed framework for this study. The course of study starts with European contact with the natives found in North and South America and continues through present day conflicts with terrorism and Iraq. Students will be instructed and assessed based on the curriculum guide and framework. The details of the curriculum may be found at the following website:

[http://www.pen.k12.va.us/VDOE/Instruction/History/hist\\_11.doc](http://www.pen.k12.va.us/VDOE/Instruction/History/hist_11.doc). All coursework and assessments will be based upon the essential knowledge portion of the curriculum framework.

### **Advanced Placement United States History**

AP United States History is a college-level course offered at the eleventh grade level. It is a rigorous and demanding study of state and national history closely following a syllabus approved by the College Board. Students are strongly encouraged to take the national AP United States History exam in May. The following units are studied: exploration and the colonial period; American Revolution and the early Republic; Jacksonian Democracy; Civil War and Reconstruction; Populism and Progressivism; World wars; Depression and New Deal; Cold War; and Conservative resurgence. Students will be required to read the adopted textbook, collateral text, and primary sources in order to master the volume of facts. Additionally, students are instructed in writing historical essays and preparing responses to document-based essay questions. Summer assignments are required; failure to complete the assignments results in a change of placement to a more appropriate level of Virginia-US History.

*Successful students meet the criteria listed below:*

- Minimum score of 50<sup>th</sup> percentile on the critical reading or writing section of PSAT or 500 on appropriate SAT test is recommended.
- Minimum grade of B+ in courses most previously completed in the appropriate subject area (W. Geog. and W. History) is recommended. However, an exception to this requirement may be made after a conference with the appropriate guidance counselor and AP US History teacher and approval by the principal.
- Recommendation of most recent social studies teacher.
- Student and/or parent attendance at the Spring AA/AP/Dual Enrollment meeting. Advanced Composition strongly recommended. Timely completion of all summer assignments at a level commensurate with college-level work is expected. Students withdrawing from any advanced placement course after the first 6 weeks will earn a grade WF on their transcript.

### **Virginia-United States Government**

Virginia-United States Government teaches students about state, local, and national levels of government in preparation for assuming adult roles as active participants in their government. Current events and the application of governmental processes to current issues and problems are stressed. Units of study generally include these: comparative political and economic systems; Virginia and U.S. Constitutions with special emphasis on the Bill of Rights, civil rights, and Supreme Court interpretations; structure of government; foreign affairs and U.S. interdependence; civic responsibilities; free enterprise; and democracy.

### **Advanced Placement United States Government**

Advanced Placement United States Government is a rigorous, intensive college-level study of local, state, and federal governments. The course follows a syllabus approved by the College Board. Students explore and develop an analytical perspective on government and politics in the U.S. with a strong emphasis on writing. Students are strongly encouraged to take the AP examination in the spring.

*Successful students meet the criteria below:*

- Minimum score of 50<sup>th</sup> percentile on the critical reading or writing section of PSAT or a 500 on appropriate SAT test is recommended.
- Minimum grade of C- in AP History recommended. However, an exception to this requirement may be made after a conference with the appropriate guidance counselor and AP Gov't. teacher and approval by the principal.
- Recommendation of previous social studies teacher.
- Student and/or parent attendance at the Spring AA/AP/Dual Enrollment meeting is required.
- Successful completion of Advanced Composition.

Timely completion of all summer assignments at a level commensurate with college-level work is expected. Augusta County School policy requires that students withdrawing from any advanced placement course after the first 6 weeks earn a grade WF on their transcript.

### **Social Studies Elective: Psychology**

Psychology is to introduce the systematic and scientific study of the behavior and mental processes of human beings. Included is a consideration of the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Students also learn about the ethics and methods psychologists use in

their science and practice. Students will become familiar with the terminology of the field as well as to major theorists who have made contributions to the field. In addition, students will have the opportunity to explore a variety of perspectives on race, gender, religion, ethnicity and socioeconomic status in discussions, seminars and through various readings. Students should emerge from this course with a more profound understanding of groups other than their own.

## **HEALTH AND PHYSICAL EDUCATION**

### **Health and Physical Education 9**

A State required course for graduation. Emphasis shall be on fitness, cardiovascular health, activities, substance abuse, personal health, nutrition, consumer/environmental health, family life education, safety/first aid, cardiopulmonary resuscitation (CPR), and the use of automated external defibrillators (AEDs)

### **Health and Physical Education 10/Driver Education**

A State required course for graduation. Continued emphasis on fitness, and wellness activities. Driver Education is taught with the health curriculum, including a strong emphasis on substance abuse.

### **Physical Education - Grade 11**

A lifetime fitness class with emphasis on weight training, cardiovascular health and other fitness activities. Students will participate in weight training 3 days per week.

### **Physical Education - Grade 12**

A lifetime fitness class where students will be involved with advanced weight training, nutrition, cardiovascular health and wellness activities. Students will participate in weight training 3+ days per week.

### **Advanced Physical Education I and II**

***Prerequisite: Successful completion of Health and Physical Education 9 & 10***

This vigorous strength training class focuses on specific skills needed for athletic success and prevention of injury. Each student develops an individualized program of activities designed to develop neuromuscular control along with the development of strength. Health issues related strength training and fitness are included. Daily attendance and active participation are required. Students will participate in weight training 4 days per week. Students will also run ½ mile per day.

### **Athletic Training - Level I**

***Prerequisites: Open to 11<sup>th</sup> and 12 graders. Students must be mature, responsible students in order to be successful in this course. Course will be open to 10<sup>th</sup> grade students if room is available.***

Athletic Training will cover these topics as they relate to athletics: taping skills, basic nutrition, basic anatomy and physiology in conjunction with injury evaluation, basic injury evaluation, and basic athletic injury rehabilitation. Much of the class will be activity-based. The instructor may require students to work with various athletic teams. This course should be especially valuable to students planning careers in medical fields, physical therapy, occupational therapy, athletic training, and sports medicine. Also, athletes who wish to learn more about their own bodies may wish to consider this course.

### **Athletic Training – Level II**

***Prerequisite: Completion of Athletic Training – Level I***

This course builds on the knowledge and skills learned in Level I. It is designed to meet the needs of students interested in continuing their preparation for careers in health science, health assessment, nutrition, and anatomy.

**Note for all PE courses:** *Students may not take more than one PE class per semester.*

# FOREIGN LANGUAGE

## Latin

### **Latin I**

Latin I features instruction in basic Latin grammar and extensive vocabulary development with emphasis on improving English skills and vocabulary through derivative studies. Students learn to read, write, and speak basic Latin while learning about Roman customs and elements of culture, such as everyday life, entertainment, government, and religion. Latin provides a sound base from which to learn many other foreign languages and improve English language skills.

### **Latin II**

***Prerequisite: Successful completion of Latin I with at least a C- average is recommended.***

Latin II continues to build foundations of Latin grammar and vocabulary with more extensive reading of Latin stories. Students continue to learn more about Roman culture, especially as it relates to ancient Greece, Egypt, and Britain. Special emphasis is given to Greco-Roman mythology through English reading.

### **Latin III**

***Prerequisite: Successful completion of Latin II with at least a C- average is recommended.***

Latin III continues to build on the Latin language skills begun in Latin I and II, developing familiarity with more complex grammar and more vocabulary. Students continue learning about Roman culture, especially as it relates to the military and society. Special emphasis is given to early Roman history through English reading.

### **Latin IV-V-VI**

***Prerequisite: Successful completion of Latin I with at least a C- average is recommended.***

Latin IV, V, and VI focus on reading authentic Latin texts written by ancient Romans. Students learn advanced grammatical concepts and continue expansion of Latin and English vocabulary, but the primary activity is reading and discussion of Latin literature. Texts encountered can include Vergil's *Aeneid*; the poetry of Ovid, Catullus, and Horace; the political and legal writings of Cicero; and a medieval novel. While levels may be combined, expectations and amount of required reading will be higher for Latin V and VI. Study of later Roman history as well as a variety of cultural topics may be included.

## Spanish

### **Spanish I**

Spanish I begins the development of the basic skills of understanding, listening, speaking, reading, and writing Spanish through a balanced program using audio, lingual, and visual approaches. The emphasis at this level is on speaking and hearing the language through a variety of experiences and through minimal dependence on English. This is a proficiency-based course.

### **Spanish II**

***Prerequisite: Successful completion of Spanish I with at least a C- average is recommended.***

Spanish II continues the development of the language skills: understanding, listening, speaking, reading, and writing. Greater emphasis is placed on speaking the language. Reading and writing increase with the student's increased knowledge of the language. Students do presentations in the target language and also write short paragraphs. Projects are included regularly.

### **Spanish III**

***Prerequisite: Successful completion of Spanish II with at least a C- average is recommended.***

Spanish III is a continuation of the development of the language skills by putting into practice all that has been learned through the careful building process in Spanish I and II. Emphasis is placed on conversation, reading comprehension, advanced grammar, cultural items, and composition writing. Papers, journals, and story summaries are included in the writing aspect of the course. Students will also read short novels in Spanish and will be speaking in Spanish with greater frequency. Projects are regularly included.

## **Spanish IV**

***Prerequisite: Successful completion of Spanish III with at least a C- average is recommended.***

Spanish IV students are capable of independent study directed by the teacher. Emphasis is placed on conversation, reading comprehension, advanced grammar, cultural items, and composition writing. They learn more of the history and geography of the Hispanic world. Students read novels in Spanish and complete comprehensive tests on the novels. Writing assignments include journals and opinion statements. Students complete projects about various Hispanic authors and novels. Students will also work with an elementary school helping Hispanic children. At the end of the course, students will present a group project in Spanish.

## **Spanish V**

***Prerequisite: Successful completion of Spanish IV with at least a C- average is recommended.***

Providing students the experience of total immersion in a foreign language, this course will require students to speak and read only in Spanish. Students will practice their oral skills by making frequent presentations in Spanish and reviewing current events related to Spanish culture. They will read current and historical literature and complete both written and oral exams. Emphasis will be placed on the impact of Hispanics on the culture of the United States.

## **French**

### **French I**

French I begins the development of the basic skills of understanding, listening, speaking, reading, and writing French through a balanced program using audio, lingual, and visual approaches. The emphasis at this level is on speaking and hearing the language through a variety of experiences and through minimal dependence on English. This is a proficiency-based course.

### **French II**

***Prerequisite: Successful completion of French I with at least a C- average is recommended.***

French II continues the development of French language skills: understanding, listening, speaking, reading, and writing. Greater emphasis is placed on speaking the language. Reading and writing increase with the student's increased knowledge of the language. Students write journals and essays. Projects are included regularly.

### **French III**

***Prerequisite: Successful completion of French II with at least a C- average is recommended.***

French III is a continuation of the development of language skills by putting into practice all that has been learned through the careful building process in French I and II. Emphasis is placed on conversation, reading comprehension, advanced grammar, cultural items and composition writing. Papers, journals, and story summaries are included in the writing aspect of the course. Students will read literary excerpts in French. Projects are regularly included.

### **French IV**

***Prerequisite: Successful completion of French III with at least a C- average is recommended.***

French IV students will undertake independent study directed by the teacher. Conversation, reading comprehension, advanced grammar; cultural items and composition writing are emphasized. Students learn more of the history and geography of the Francophone world. They will read novels in French and complete comprehensive tests on the novels. Writing will include journals and opinion statements. Students will complete projects about various French authors, artists, and historical figures, and present them in French to the class.

***Advanced levels of all foreign languages can only be offered if enrollment justifies it.***

**American Sign Language** can be accepted as a foreign language credit for the Advanced Studies Diploma.

# **AGRICULTURE**

Agricultural Education encompasses the study of biology, chemistry, physics, economics, technology, politics, sociology, international trade, and environmental issues within the context of the agricultural and natural resources industries. Instruction in agriculture focuses on:

- The awareness and appreciation of agriculture
- The preparation of students to enter and advance in agricultural occupations
- The application of basic skills to strengthen and support other courses taught in public schools.

The student organization FFA provides opportunities for students to develop premier leadership, personal growth, and career success. FFA activities are in integral part of the total instructional program in Agricultural Education.

## **Applied Agricultural Concepts**

This course includes these areas of study: metalworking, woodworking, electricity, small engines, public speaking, leadership, agricultural technology, food science, a basic knowledge of FFA, and animal science. *This course is designed to meet the interests of students who did not take an Agriculture Education class at the Middle School level.*

## **Agricultural Production Technology**

***Prerequisite: Applied Agricultural Concepts OR Introduction to Animal Systems***

This course emphasizes one or more areas of plant science, animal science, soil science, agricultural business management, and agricultural mechanization, based upon the student's employment objective. Supervised occupational experience programs and leadership training are important parts of the course.

## **Agricultural Structural Systems**

***Prerequisite: Applied Agricultural Concepts OR Introduction to Animal Systems***

Instruction in agricultural structural systems will provide students with the knowledge and skills necessary to consider a career in constructing agricultural and building systems. Instruction will focus on the specific components of building systems and on developing leadership and career skills.

## **Livestock Management**

***Prerequisite: Applied Agricultural Concepts OR Introduction to Animal Systems***

Livestock Management includes instruction in the area of animal science, with emphasis placed on production livestock species (beef, dairy, poultry, sheep, and goats). The course expands on previous knowledge in animal nutrition, reproduction, health management, and business management as it relates to livestock enterprises.

## **Forestry Management- Dual Enrollment & Non-Dual Enrollment (Grade Level: 11 or 12 suggested)**

This course will offer students instruction in the management of the forest as a resource and as a business. Students will develop knowledge in areas like tree physiology, forest ecology, silviculture, and the management and marketing of forest products. Strong emphasis is placed on developing career skills for the forestry industry as well. An option for some students to receive 4 credit hours in FOR 105 from Dabney Lancaster Community College while enrolled in Forestry, Wildlife, and Soil Mgt.

## **Horticulture Sciences**

***Prerequisite: Applied Agricultural Concepts, also open to 9th graders who have taken Middle School Ag***

Units of instruction in this course include growing greenhouse crops; producing and maintaining nursery crops; establishing, maintaining, and designing landscape planting; establishing and maintaining turf grass; and operating a retail business. Leadership skills continue to be developed.

## **Landscaping**

***Prerequisite: Horticulture***

Students develop the necessary knowledge, skills, habits, and attitudes for entry-level employment and advancement in areas such as floriculture, landscape design, greenhouse operation, nursery plant production, and turf management. They receive instruction in using soil and other plant-growing media and in identifying, propagating, and growing horticultural plants in the greenhouse and land laboratory. Instruction is provided in safety practices and leadership development.



### **Turf Grass Establishment & Maintenance**

Grade Level: 10 and 11 suggested

Students begin to master the duties and tasks of professionals who establish and maintain turf in public areas such as golf courses; parks; athletic fields; school, industrial, and institutional campuses; and residential lawns.

### **Turf Grass Applications, Advanced**

**Prerequisite: Successful completion of Turf Grass Establishment & Maintenance**

Students continue to study the duties and tasks of professionals who establish and maintain turf in public areas such as golf courses; parks; athletic fields; school, industrial, and institutional campuses; and residential lawns.

### **Veterinary Science**

**Prerequisite: Biology OR Intro to Animal Systems**

Veterinary Science enables students to acquire the employability and technical knowledge and skills needed to succeed in postsecondary education as well as in a career in veterinary medicine or a related occupation. Course content integrates application of academics, development of career competencies, and instruction in course-specific knowledge and skills, such as the use of tools, equipment, and facilities related to veterinary medicine. Business management, leadership, and FFA activities are included in the course. Students enrolled in the course should have a strong background in math and science and should be familiar with small animal care.

## **BUSINESS & INFORMATION TECH. AND MARKETING**

The Business and Information Systems offerings are designed to meet two widely recognized goals of business education:

- Basic business education for all, including academic preparation and occupational exploration.
- Occupational preparation for those entering business and office occupations.

**Note:** *The successful completion of Computer Applications plus two additional Business & Information Technology courses qualifies students to be recognized as Career & Technical Education Completer at WMHS graduation.*

### **Computer Information Systems**

**Recommended Prerequisite: Keyboarding course(s) or teacher-approved demonstration and documentation of touch keyboarding skills**

Students apply problem-solving skills to real-life situations through word processing, spreadsheets, databases, and multimedia presentations, and integrated software activities using Microsoft Office. Students work individually and in groups to explore computer concepts, operating systems, networks and telecommunications, and emerging technologies. Successful completion of this course may prepare students for the certification exam for Microsoft Office Specialist (MOS). Students will possess marketable and personal skills for use in future computer applications after completing this course. If appropriately registered, students may earn Concurrent Enrollment (CE) credit through BRCC.

### **Cyber Security**

Cybersecurity affects every individual, organization, and nation. This course focuses on the evolving and all-pervasive technological environment with an emphasis on securing personal, organizational, and national information. Students will be introduced to the principles of cybersecurity, explore emerging technologies, examine threats and protective measures, and investigate the diverse high-skill, high-wage, and high-demand career opportunities in the field of cybersecurity.

### **Design, Multimedia and Web Technologies**

**Prerequisites: Computer Applications is Required**

Students develop proficiency in using desktop publishing software to create a variety of printed and electronic publications. Students will incorporate journalistic principles in design and layout of publications. Students work with sophisticated hardware and software to develop web sites and multimedia presentations using Microsoft Word, Adobe Photoshop CS3, Publisher and PowerPoint.

### **Digital Applications**

***Prerequisite: Knowledge of computer operations strongly recommended.***

This course is designed for secondary school students to develop real-life, outcome-driven approach skills for digital citizenship, basic computer operations, keyboarding, application software (word processing, spreadsheets, multimedia applications, databases), and career exploration. This course promotes skills that can be applied across the curriculum and offers preparation relevant to 21st-century skills and postsecondary education.

### **Digital and Social Media Marketing**

This course introduces students to digital and social media marketing. Students explore principles, strategies, tools, and tactics related to consumers, branding, advertising, and promotions. Students explore how success is measured in a digital and social media marketing campaign. This course emphasizes ethics, laws, and security. Students also investigate business and marketing plans as well as careers in digital and social media marketing.

### **Sports, Entertainment, and Recreation Marketing**

Grade Levels: 10,11,12

This introductory course helps students develop a thorough understanding of fundamental marketing concepts and theories as they relate to the sports, entertainment, and recreation industries. Students will investigate the components of branding, sponsorships and endorsements, as well as promotion plans needed for sports, entertainment and recreation events. The course also supports career development skills and explores career options. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course.

### **Accounting**

***Recommended prerequisite(s): Keyboarding course(s) or teacher-approved demonstration and documentation of touch keyboarding skills***

Grade Levels: 10, 11, and 12

Students study the basic principles, concepts, and practices of the accounting cycle for a service business and a merchandising business. Topics covered include analyzing transactions, journalizing and posting entries, preparing payroll records and financial statements, and managing cash control systems. Business ethics and professional conduct are emphasized. Students learn fundamental accounting procedures using both a manual and electronic system. All students planning to pursue additional education in any business area are strongly encouraged to take this course.

### **Economics & Personal Finance (required for all students, suggested grade levels 10, 11 or 12)**

Students learn how economies and markets operate and how the United States economy is interconnected with the global economy. Additionally they learn how to navigate the financial decisions they must face and to make informed decisions relating to career exploration, budgeting, banking, credit, insurance, spending, financing postsecondary education, taxes, saving and investing, buying/leasing a vehicle, and living independently. They also learn the importance of investing in themselves in order to gain the knowledge and skills valued in the marketplace. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship, more effective participation in the workforce, and career success. The course incorporates all economics and financial literacy objectives per the state of Virginia.

### **Entrepreneurship Education**

Grade Levels: 10-12 suggested

This course introduces students to the exciting world of creating, owning, and launching their own business. Students will learn concepts and techniques for planning an innovative business and living the entrepreneurial lifestyle.

## **FAMILY AND CONSUMER SCIENCES**

Family and Consumer Science courses provide students the opportunity to explore and prepare for careers in culinary, nutrition, dietetics, education, early childhood, fashion design, interior design, textiles, tourism and hospitality, food science, social services and many human services related careers. It also provides students enrolled with skills, attitudes and behaviors necessary for promoting nutrition and wellness; strengthening the

well-being of individuals and families; becoming responsible citizens and leaders in family, community and work settings; managing resources and finances; balancing personal, home, family and work lives; and preparing for successful life management, employment and career management; as well as, critical and creative thinking skills to address problems. Family and Consumer Sciences engages students in hands-on learning that they will use for life – parenting, family relationships, communication skills, nutrition, fitness, food preparation, finances and management, fashion design, textiles, food science, and consumerism, to name a few. Local, regional, and national activities of the student organization FCCLA help youth assume their roles in society through Family and Consumer Science in areas of personal growth, family life, Career and Technical preparation, and community involvement.

### **Individual Development**

Individual Development students focus on cultivating positive self-esteem; developing skills to build healthy relationships with family, peers, and community members; managing stress and conflict; and preparing to become college- and career-ready.

### **Life Planning**

Life Planning equips students with the skills to face the challenges in today's society. Students will develop a life-management plan which includes Developing Career, Community, and Life Connections; Applying Problem-Solving Processes to Life Situations; Creating and Maintaining Healthy Relationships; Developing Strategies for Lifelong Career Planning; Developing a Financial Plan; Examining Components of Individual and Family Wellness; and Demonstrating Leadership within the Community. Critical thinking and practical problem solving are emphasized through relevant life applications.

### **Family Relations**

Students enrolled in Family Relations focus on analyzing the significance of the family, nurturing human development in the family throughout the lifespan, analyzing factors that build and maintain healthy family relationships, developing communication patterns that enhance family relationships, dealing effectively with family stressors and conflicts, managing work and family roles and responsibilities, and analyzing social forces that influence families across the lifespan. Critical thinking, practical problem solving, and entrepreneurship opportunities within the area of family responsibilities and services are emphasized. Teachers highlight the basic skills of mathematics, science, and communication when appropriate in content.

### **Child Development and Parenting**

Suggested Grade Levels: 10, 11, 12

Students enrolled in Child Development and Parenting focus on balancing work and family; analyzing parenting roles and responsibilities; ensuring a healthy start for mother and child; evaluating support systems that provide services for parents; and evaluating parenting practices that maximize human growth and development.

### **Nutrition and Wellness**

Students enrolled in Nutrition and Wellness focus on making choices that promote wellness and good health; analyzing relationships between psychological and social needs and food choices; choosing foods that promote wellness; obtaining and storing food for self and family; preparing and serving nutritious meals and snacks; selecting and using equipment for food preparation; and identifying strategies to promote optimal nutrition and wellness of society. Critical thinking, practical problem solving, and entrepreneurship opportunities within the area of nutrition and wellness are emphasized.

### **Interior Design I**

Interior Design I students explore career options and professional practices in interior design. Students acquire skills in the design of interior spaces, including selection and application of furnishings, fixtures, equipment, and textiles. Students apply the elements and principles of design, think critically, solve problems, and explore entrepreneurship opportunities within the interior design profession.

### **Interior Design II**

***Prerequisite: Interior Design I***

Suggested Grade Levels: 10 11 12

This course is a continuation of Interior Design I. This course prepares intermediate interior design students for instruction in interior spaces and in determining client interests and developing a design plan. Areas of study include styles and trends in architecture, the basic structure of construction, and residential and commercial

interior designs. Students will expand their design knowledge in color, textiles, materials, furnishings, accessories, and completing and presenting design professional presentations. The appropriate use of technology and industry standard equipment is an integral part of this course

## **FINE ARTS: PERFORMING**

### **Intermediate Chorus**

This course is offered to current and aspiring singers in grades 9-12, regardless of their previous choral experience. The curriculum explores proper vocal technique, sight singing, ear training, music theory, and music history through the study of a wide variety of choral literature. Students may take chorus as often as they wish for credit. Performance at certain concerts is required.

### **Advanced Chorus Select (Singing Sergeants)**

***Prerequisites: Participation in preceding chorus class is recommended; however, membership may also include students who have not been members of the choral program but have demonstrated a high degree of proficiency in advanced choral skills. An audition and application are required for placement in Singing Sergeants.***

Advanced Chorus Select, Singing Sergeants, gives students the opportunity to be involved in advanced choral experience. All facets of choral musicianship will be studied including proper use of singing voice (posture, breath control, support and command of vocal production and intonation); advanced levels of sight singing, advanced music theory, purposeful listening, rehearsal and performance etiquette, and music appreciation. Students are required to participate in numerous concerts throughout the school year. It is preferred that students schedule this course both fall and spring blocks.

### **Music Theory I: Introduction to Songwriting**

This class studies the beginnings and basics of music theory and songwriting. It is a non-public performance class. While extensive knowledge of music is not required, basic note reading and a love of music would be helpful. Students will refine note reading skills, followed by guided compositions and progressing to independent musical works. Keyboarding skills are also taught. A technology component is integrated. Students will learn how to professionally print their compositions by using music software. This course is open to all students' grades 9-12.

### **Music Theory II**

***Prerequisite: Successful completion of Music Theory I or tests out of Theory I***

This class is a continuation of Music Theory I. Student compositions will become longer in length as well as more advanced. Musical arranging will be introduced and studied. Sibelius software will be used throughout the semester. Students will compose for a variety of instruments and a wide range of vocalists.

### **Advanced Band-Marching**

***Prerequisite: Intermediate Band***

The course in Advanced Band is designed to equip the student with techniques in instrumental music performance as it relates to marching and concert bands. In completing the course, the student will possess the necessary skills to perform avocationally and/or have a strong background on which they may continue to develop their talents towards a musical vocation such as pit orchestra, studio music, etc.. Inherent to the course is the understanding that students are enrolled to further develop their own individual talents as well as to participate in group activities which culminate in the creation and performance of music.

### **Advanced Band - Concert Band**

***Prerequisite: Intermediate Band***

The course in Advanced Band is designed to equip the student with techniques in instrumental music performance as it relates to concert bands. Completing the course, the student will possess the necessary skills to perform avocationally and/or have a strong background on which they may continue to develop their talents towards a musical vocation such as pit orchestra, studio music, small ensembles, etc. Inherent to the course is the understanding that students are enrolled to further develop their own individual talents as well as to participate in group activities which culminate in the creation and performance of music.

### **Percussion Ensemble (Advanced Band Percussion)**

This class will run concurrently with the marching band during marching season. It is made up primarily of the marching band drumline and front ensemble percussion. They will explore, create, and refine the art of drumline percussion to top level performance. The latter half of the semester will explore percussion ensemble music as well as concert band music. Percussionists will work aggressively on the 26 American Rudiments for drummers.

### **Small Instrumental Ensemble (Jazz Band)**

#### ***Prerequisite: Intermediate Band***

The course in Jazz Ensemble is designed to equip the student with techniques in instrumental music performance as it relates to the study of jazz, swing, rock, and related genres. Upon completing the course, the student will possess the necessary skills to perform avocationally and/or have a strong background on which they may continue to develop their talents toward a jazz musical vocation such as pit orchestra, studio music, small combo, etc. Inherent to the course is the understanding that students are enrolled to further develop their own individual talents as well as to participate in group activities which culminate in the creation and performance of music.

In addition, the student should understand that they will continue the study of concert band music and participate in the concerts as a concert band to include but not limited to district concert festival, fine arts festival, all-county and all-district bands, spring concert, spring trip, and other performances scheduled by the band director.

### **Local Music Elective I – Discovery**

This class is designed to meet the musical interests of students with no musical experience. Students who enroll must be beginners with no experience on musical instruments. Students will learn basic technique and notation. Note reading, music theory, and the history of instruments will be studied. Instruments are provided for classroom use. Students will learn these elements of music while learning on 4 sets of musical instruments, 3 weeks each; Piano, guitar, drum set, and a wind instrument. Enrollment is limited to 12 students. This course is open to all students grades 9-12.

### **Local Music Elective II – Guitar I**

This class is designed to meet the interests of beginning guitar students. Students will learn basic technique and notation. Note reading and theory as well as history will be studied. Basic instruments will be provided. Students interested in extending their study to an acoustic instrument will have to provide their own. Enrollment is limited to 12 students. This course is open to all students grades 9-12.

### **Local Music Elective III – Guitar II**

#### ***Prerequisite: Guitar I***

This class is designed to continue the study of the guitar as studied from the Guitar I class. Students will review basic guitar strumming, chords, music reading, and theory. The class will continue into reading TAB, more complex note reading and playing, chords and keys. Basic instruments will be provided. Students interested in extending their study to an acoustic instrument will have to provide their own. Enrollment is limited to 12 students. This course is open to all students grades 10-12.

### **Local Music Elective IV - Piano Lab I-II**

This course is for beginning pianists in grades 9-12 who have no instructional experience on the instrument. The curriculum focuses on learning music notation, music theory, technique, scales, chord progressions, and beginning level piano literature. There will also be a strong focus on music theory. Class size is limited to 8 students.

## **FINE ARTS: VISUAL**

### **Art I: Foundations**

Art I is a course designed to develop abilities in recognizing visual arts content, concepts and skills. Through art production, art criticism, art history and aesthetics, students will create original works of art. Students will acquire art vocabulary. Emphasis will be placed on the building blocks of art—the elements of art and principles of design.

## **Art II: Intermediate**

### ***Prerequisite: Art I***

Art II is a course designed to refine the skills and knowledge acquired in Art I. Art production, art criticism, art history, and aesthetics will continue to be the focus of instruction. The portfolio with selected representative work will be maintained from Art I and taken to the next level of study.

## **Art III: Advanced Intermediate**

### ***Prerequisite: Art II Intermediate***

Advanced Intermediate Art continues to build on the development of abilities to organize and analyze visual art content, concepts, and skills in creating works of art with an emphasis on problem-solving. The four areas of concentration will be art production, art history, art criticism, and aesthetics. The opportunity for structured personal development of art will be provided. Selected works of art will be added to portfolio for the next level of study.

## **Art IV - VIII Advanced**

### ***Prerequisite: Appropriate art classes and/or recommendation of instructor.***

Advanced Art (Art IV - VIII) are courses designed to reinforce competence in skills of analysis, evaluation, and creation of works of art. Emphasis is placed on personal expression for a more student-directed approach to art instruction. An advanced level of performance will be exhibited in the culminating portfolio, including quality and range of artwork produced throughout the high school program.

## **Advanced Placement Studio Art**

### ***Prerequisites: Appropriate art classes and/or recommendation of instructor.***

AP Studio Art is a course designed to foster the concentrated study of a particular area of art. Each student is required to prepare and complete a portfolio, following the nationally established AP guidelines set by the College Board. AP Art students are expected to produce at least 15 original works of art that represent their visual voice while also showing signs of extended growth and experimentation in their art-practices. The Advanced Placement program in Studio Art enables highly motivated students to do college-level work in studio art while still in high school. This rigorous and demanding course parallels the expectations that would be found at the college freshman, studio art introductory level.

## **Advanced Placement Art History**

### ***Prerequisites: Appropriate art classes and/or recommendation of instructor.***

AP Art History is a chronological survey of architecture, painting, sculpture, and photography of Western tradition and selected works for a variety of cultures from beyond the European tradition. The sequential presentation of the artwork studied in the course begins in the prehistoric period and ends with postmodernism. Central to the curriculum is the development and practice of clear writing skills and using the language of art analysis. Strategies of comparative analysis of works of art are also introduced and practiced in class discussion, written assignments, and tests. Formal analysis using the elements of design and composition, and various strategies and models presented in class specifically referenced to each art form, are introduced and developed throughout the year.

## **Art Elective: Functional Art**

Course Description: An arts class exploring the functionality of art with such projects as basket weaving, printmaking, weaving, stained glass, embroidery, jewelry making, candle-making, fabric projects, and more. Learn how to make functional pieces of art using a variety of techniques and materials. If you enjoy creating do-it-yourself projects while exploring a variety of materials beyond the scope of a typical art class, then this is the course for you! By the end of the semester, you will have developed a deeper understanding of various functional arts with origins that span the globe. No previous experience necessary; just an interest in expanding your understanding of crafts and creativity.

## **Art Elective: Ceramics I (Prerequisite: Art I)**

Ceramics I is an introductory studio course in working with clay. Students grade 10 and above will produce three-dimensional functional and sculptural works of art utilizing a variety of clay techniques and processes. The main goal of this course is to experiment with mastering the hand-building methods as well as competency in throwing on the wheel. Students will also have the opportunity to experiment with glazes and clay surface treatments. The course will also include investigating the history of ceramics and exploring traditional and contemporary clay artists working today.

### **Art Elective: Ceramics II**

#### ***Prerequisite: Ceramics I***

Ceramics II is a continuation of the concepts and techniques learned in Ceramics I. Students will produce three-dimensional functional and sculptural works of art utilizing a variety of clay techniques and processes. The main goal of this course is to experiment with mastering the hand-building methods as well as competency in throwing on the wheel. Students will also have the opportunity to experiment with glazes and clay surface treatments. The course will also include investigating the history of ceramics and exploring traditional and contemporary clay artists working today.

### **Art Elective: Yearbook I, II, III, and IV**

***Prerequisites: Enrollment is limited to 15 students maximum. Open to students in Grades 11 and 12 with an application process. Interested students must apply with the teacher and receive written permission to enroll in the class.***

Yearbook I, II, III, and IV concentrate on all aspects involved in producing the school's yearbook. The class uses desktop publishing skills as well as a photo editing software to produce the book. Students are expected to become proficient in the computerized program designed specifically for Herff Jones. Most students are also responsible for taking pictures to be used in yearbook, downloading them into the computers, cropping and editing, and maintaining the cameras for everyone's use. Students must be willing to attend some or all home games for fall, winter, and spring sports. Students also improve and expand their writing skills by producing a student newspaper and literary magazine. They learn about career opportunities in publication as well as the ethics of media. This class learns "by doing." Students work independently and in small and large groups; consequently, they must be able to work in cooperation with others and with self-direction. Students must demonstrate trustworthiness, honesty, and dependability. \*\*Students take Yearbook for one block each semester and earn two credits.

## **TECHNOLOGY EDUCATION**

### **Materials and Processes Technology**

Materials and Processes is a class that will introduce students to a variety of common materials and the processes used to make them into everyday products. Students will participate in a number of lab activities including woodworking projects, light metal projects, and plastics forming processes.

### **Manufacturing Systems I**

***Prerequisite: Successful completion of Materials & Processes.***

Manufacturing is a class designed to introduce a variety of different aspects of the manufacturing industry. Safety, materials, business, finance, facilities, production and marketing are all topics that will be addressed as they relate to manufacturing. As these topics are being covered, level appropriate hands on lab projects will also be conducted. Students will assume a larger role in the planning and execution of lab projects. Both individual, small group and whole class activities will be included.

### **Production Systems**

***Prerequisite: Successful completion of Materials & Processes and Manufacturing Systems.***

Production Systems will be the 3rd class in the sequence of Materials and Processes and Manufacturing. This class will reinforce and expand the knowledge and practices previously experienced with students taking a larger role in planning, problem solving, critical thinking, and the teamwork involved with production. Topics such as automation, robotics, fluid power and electricity/electronics will be discussed.

### **Technical Drawing and Design**

This course is open to students in grades 10, 11, and 12.

Basic Technical Drawing, also known as Technical Drafting Design, is the foundation course for students to learn the basic language of technical design. They will design, sketch, and make technical drawings, models, or prototypes of real design problems. This course is especially recommended for students who plan on a trade or technical career, construction career, or engineering and architecture careers. Students will use both mechanical and computer-aided drawing and design (CAD) equipment in the class. This course may be taken for dual enrollment credit with Blue Ridge Community College. Students taking it for dual credit are subject to additional expenses.

## **Engineering Drawing and Design**

***Prerequisite: Successful completion of Basic Technical Drawing & Design***

Engineering Drawing is for the student who wants to gain an in-depth understanding of drawing and design. Emphasis is placed on working, pictorial, and also covered is research, math and sciences as it applies to the drafting and design field. This course may be taken for dual enrollment credit with Blue Ridge Community College. Students taking it for dual credit are subject to additional expenses.

## **Architectural Drawing and Design**

***Prerequisite: Successful completion of Basic Technical Drawing & Design***

This course is designed for those advanced students interested in increasing their knowledge of the principles of architecture, working drawings, and construction techniques. Emphasis will be placed on design, sketching, structural systems, construction techniques, and model building of designed structures. This course may be taken for dual enrollment credit with Blue Ridge Community College. Students taking it for dual credit are subject to additional expenses.

## **Digital Visualization**

This course is intended to meet the needs of students interested in exploring computer animation and basic video game design. Students will begin by learning the fundamentals of creating a storyboard. Using a variety of software, students will analyze existing animation, learn the fundamental techniques for creating animations, then plan and create a product of their own. Students will generate a multimedia portfolio that includes examples of their work. Students will also explore careers in animation and analyze some ethical considerations of animation.

## **Communication Systems**

Communication Systems builds upon experiences in Graphic Communications. Students use technology to communicate information in visual or audio formats. Student projects will employ tools, materials, and other elements in the application of communication systems and subsystems to solve problems, create effective media, and process information. Through hands-on projects, students develop personal interests and analyze the impact of communication systems on people, society, and culture. These projects include making T-shirts, commercials and green screen manipulation. This is a foundational course and is open to all grade levels.

## **Graphic Communications Systems**

***Prerequisite: Successful completion of Communications Systems or Technical Drawing & Design***

Graphic Communications is the class that deals with the visual image. Printing processes, photographic processes, desktop publishing, stenciling, and screen-printing are all topics covered in class. Students will enjoy a wide variety of hands on opportunities that will allow them to utilize and produce products ranging from computer generated output, stenciled items, self-developed photographs, and screen-printed t-shirts.

## **Video and Media Technology**

***Prerequisite: Successful completion of Communications Systems preferred.***

This course offers students an opportunity to study all aspects of video and media production, from planning and writing for production to operating studio and editing equipment. Students practice various methods of gathering news and information from individuals, research, and online resources. In addition, students are introduced to analog and digital principles of film production. This course is open to students in grades 10, 11, and 12.



# Additional Programs Available by Application

## **GED (ISAEP)**

***Prerequisite: Students must be at least 16 years old, have a 7.5 grade equivalent or higher in reading comprehension, and an average score of 410 on each of the subtests of the GED practice test. Testing at the Career Assessment Center is also required.***

The ISAEP Program is for those students who are interested in receiving a GED instead of a high school diploma. The ISAEP program requires the completion of a vocational program, Economic and Personal Finance, as well as successful completion of all GED components. In accordance with the Code of Virginia §22.1-254D.E., the Individual Student Alternative Education Plan (ISAEP) program prepares students to earn a high school equivalency (HSE) credential while also developing career and technical skills. The ISAEP program fulfills compulsory attendance requirements for students who are at least 16 years of age and for whom an ISAEP is written. ISAEP GED students will meet during the time agreed upon during the Pre-enrollment meeting with the guidance counselor, parents, and administration. Students will continue to attend all courses per their current schedule until their first official day in the ISAEP GED program. Once approved and all enrollment requirements are met they will then report to the ISAEP GED's teacher room per agreement. Because GED testing is a cooperative program administered by the Commonwealth of Virginia and Augusta County Public Schools in conjunction with the GED Testing Service, American Council on Education, guidelines proposed for testing eligibility are binding upon school divisions.

***Eligibility*** - A student is eligible for enrollment in the ISAEP program if the student:

1. is currently enrolled in a public high school
2. is at least 16 years of age
3. is at risk of dropping out of school
4. is not earning the required number of credits to earn a traditional high school diploma
5. meets the ISAEP academic entrance requirements
6. chooses to prepare for the GED® test.

Once all of the above requirements are met, the development of the ISAEP is undertaken in conjunction with guidance, administration, and the ISAEP coordinator. The student is then officially enrolled in Augusta County Public Schools' ISAEP GED program.

***GED Testing*** - Upon completion of the following, students will qualify to take the GED test:

1. All of the coursework and homework for at least one subject
2. A score of 145 or higher on the GED-Ready test
3. Satisfactory attendance

***EXIT Requirements*** - Passing the GED test does not constitute completion of the ISAEP program or of the state's compulsory education requirements. All components of the ISAEP must be completed in order to meet these requirements. Students have four options to exit the ISAEP program:

1. Earn GED – pass all four of the GED subject tests with a 145 minimum score.
2. ISAEP Program Completer
  - a. Completes Economics and Personal Finance (6120) and
  - b. Passes all four of the GED subject tests with a 145 minimum score
3. Re-enter regular high school program
4. Discontinue ISAEP program
  - a. Drop enrollment in any recognized educational program
  - b. Student will be out of compliance with compulsory school attendance resulting in court notification.

For more information: Contact the Counseling Office at Wilson Memorial High School at 540-886-4286 for specific information or by contacting by contacting the Office of Career, Technical, and Adult Education at: [OAEL@doe.virginia.gov](mailto:OAEL@doe.virginia.gov).

## Education For Employment (EFE)

Students in this program receive school-based and community-based instruction organized around an approved job that leads toward their career goal. The teacher-coordinator, on-the-job trainer or sponsor, parent, and student develop an individualized training plan that identifies learning experiences according to the student's occupational objective. The job training is an extension of the classroom instruction. Three credits are awarded if the student completes 396 hours of supervised work experience and passes the classroom instruction. This program is limited to students who are economically or academically disadvantaged.

## Mentorship

Students in Grade 12 may elect to apply for a Mentorship program sponsored by the Valley Alliance for Education. Students submit applications for the program and, if selected, are placed with area professionals. Each student shadows the professional and conducts an independent project under the leadership of the mentor. Students must provide their own transportation and must also meet regularly with the program supervisor. Students are selected for one or two semesters of participation. Each semester requires a minimum of 150 hours of volunteer time. Students earn one credit for each semester. Students may obtain applications from their guidance counselor. They should demonstrate the following characteristics: self-reliance, dependability, responsibility, maturity, and independence. *An interview with the program coordinator is required.*

## Virtual Virginia Courses

This unique program provides access to online Advanced Placement, world languages, and elective courses for focused, self-motivated students who work well with minimal supervision. Please refer to the Virtual Virginia website at [www.virtualvirginia.org](http://www.virtualvirginia.org) for more information and a list of course offerings. This level of online coursework is intended for students working toward earning an Advanced Studies Diploma and are working towards earning at least 15 transferable college credits. Students must sign a Virtual Virginia Agreement and an Early College Scholars Agreement. *Please Note: The student will be responsible for textbook fees and a \$75 withdrawal fee if they withdraw after the published Virtual Virginia course drop deadline.*

## Dual Enrollment

The following courses are offered as Dual Enrollment:

- Technical Drawing and Design (Technical Drafting I)
- Engineering Drawing and Design (Computer Aided Drafting I)
- Architectural Drawing and Design (Architectural CAD Applications Software I)
- Computer Information Systems (Intro. to Computer Applications and Concepts)
- Forestry, Wildlife, and Soil Mgmt. IV (Forestry and Wildlife Ecology)
- College Composition I & II (English 12)

*Please Note: These courses will require additional fees.*

## Leadership Development

This course is designed to equip 11th and 12th grade students with individual and group leadership skills. Course content includes units in principles of leadership, officer training, parliamentary law, public speaking, the development of effective communication and human relation skills, the development of positive public relations, and the use of proper etiquette. Principles of organizing and conducting group meetings and activities are also included in the instructional program. Students are encouraged to be active members of a community or school organizations, such as the FFA, FCCLA, SCA, or TSA to name a few.



Valley Career and Technical Center courses grant a total of 3 units of credit per course per year. Programs are designed to assist students in becoming college and career ready through the development of career awareness, workforce readiness and industry –specific job skills. VCTC program completers may also earn state licensure or industry credentials. These credentials can enhance a student’s employability profile in today’s highly competitive job market.

## **Agriculture**

### **Floriculture**

Suggested Grade Level: 9, 10, 11, 12

Semester Course

This course focuses on floral design and the history of the flower industry. Units include introduction to the floral industry, basic botany, floral supplies and equipment, principles of floral design, color and symmetry, and construction and mechanics of floral design.

### **Greenhouse Plant and Production**

Suggested Grade Level: 9, 10, 11, 12

Students are instructed in using soil and other plant-growing materials and in identifying, propagating, and growing horticultural plants in the greenhouse and land laboratory.

### **Livestock Production Management & Operating the Farm Business**

Suggested Grade Level: 11, 12

1 Year Program

This course will provide an intensive study in livestock production, management, marketing, nutrition, breeding, production records, selection, animal health, waste management and conservation practices.

### **Veterinary Science I & II**

Suggested Grade Level: 10, 11

2 Year Program

Students learn animal science and the care of animals, including the fundamentals of companion animal species and breeds, behavior and training, body systems, nutrition, and safety. Students develop basic skills and techniques for assisting the veterinarian. (3 dual enrollment credits)

## **Business and Information Technology**

### **Computer Network Software Applications**

Suggested Grade Level: 10, 11,12

1 Year Program

Computer Network Software Operations is designed to teach many aspects of computer support and network administration. Students learn networking concepts, from usage to components, and set up peer-to-peer network systems and client server networks. Students install and configure network cards and connect them to networks. Students learn how to install the operating systems, set up and manage accounts, load software, and set up and implement security plans.

### **Computer Systems Technology**

Suggested Grade Level: 10, 11,12

1 Year Program

Students enter the world of computer technology and gain practical experience in assembling a computer system, installing an operating system, troubleshooting computers and peripherals, and using system tools and diagnostic software. Upon successful completion of the course, students may qualify to take the A+ certification exam.

## Education and Training

### **Teachers for Tomorrow**

Suggested Grade Level: 11, 12

1 Year Program

Introduction to a teaching career. Includes internship. Students build a foundation for teaching; learn the history, structure and governance of teaching; apply professional teaching techniques in the VTFT classroom. (3 dual enrollment credits)

## Family and Consumer Sciences

### **Culinary Arts I & II**

Suggested Grade Level: 10, 11

2 Year Program

Students learn and practice managerial, production and service skills used in the food industry.

## Health and Medical Sciences

### **Dental Careers I & II**

Suggested Grade Levels: 11 or 12

1 Year Program

Students are introduced to the careers in dentistry, including dentist, hygienist, dental assistant, dental laboratory technician, and dental receptionist. Students learn many of the skills utilized in these professions while attaining all the skills necessary to become a dental assistant.

### **EMT I & II**

Suggested Grade Levels: 10 (Must be 16), 11, 12

1 Year Program

Identifying, diagnosing and developing a treatment plan for various medical emergencies.

### **Nurse Aide I & II**

Suggested Grade Levels: 11 or 12

1 Year Program

Learn skills to become a Certified Nursing Assistant (C.N.A). Students study normal growth and development, simple body structure and functions and medical terminology. Students receive skills training in patient-nursing assistant relationships.

### **Patient Care Technician**

Suggested Grade Levels: 12

1 Year Program

Prerequisite: Nurse Aide I & II

Normal growth and development, simple body structure and function, and medical terminology. Upon completion of the course, students will master skills performing ECGs, basic medical, lab and exam procedures, drawing blood, and providing basic patient care. Nurse Aide II required.

### **Pharmacy Technician**

Suggested Grade Levels: 12

1 Year Program

The coursework will fulfill the requirements of the Board of Pharmacy.

## Trade and Industrial Education

### **Auto Body Technology I & II**

Suggested Grade Levels: 10 or 11

18 month Program

Preparation to work in the automotive repair industry. Students learn metal finishing and body filling techniques to prepare surfaces and repair panels.

### **Automotive Technology I & II**

Suggested Grade Levels: 11 or 12

2 Year Program

Students learn all aspects of repair, safety, and customer service by concentrating on four primary areas: brakes, steering and suspensions, electrical/electronics, and engine performance.

### **Woodworking and Design (Cabinet Making)**

Suggested Grade Levels: 9, 10,11, 12

1 Year Program

Cabinetmaking basics from blueprints to assembly & finishing.

### **Carpentry I & II**

Suggested Grade Levels: 11

2 Year Program

Students learn to read blueprints, build and install trusses, doors, windows, stairs, frame walls, floors, ceilings, roofs, decks and porches. Students obtain OSHA safety credential.

### **Cosmetology I & II**

Suggested Grade Levels: 11

2 Year Program

Students are grounded in theory as they practice skills in a lab setting. Students develop skills in shampooing and conditioning hair as well as styling and cutting hair. Students will be given the opportunity to take the state certification test upon successful completion of the course.\*\*No longer accepting 12 graders in first year program.

### **Criminal Justice I & II**

Suggested Grade Levels: 10,11, 12

1 Year Program

Preparation for law enforcement, courts and corrections. (6 dual enrollment credits)

### **Diesel Equipment Technology I & II**

Suggested Grade Levels: 11

2 Year Program

Students learn to inspect, maintain, and repair trucks including; wheels, brakes, operating controls, pneumatic and hydraulic systems, electrical circuitry, and engines.

### **Electricity I & II**

Suggested Grade Levels: 11

2 Year Program

Students study electrical theory, navigate the National Electrical Code Book, select and install conductors, and work with panelboards, switchboards, and generators.

### **Firefighter I & II**

Suggested Grade Levels: 10 (Must be 16), 11, 12

1 Year Program

Learn equipment & procedures necessary to fight live fires, operating in simulated hazardous-materials incidents, & conduct search-&-rescue operations. Become familiar with emerging technologies such as communications software.

**HVACR I & II**

Suggested Grade Levels: 11

2 Year Program

Install, repair & maintain heating, AC & refrigeration systems. Completion of this sequence may prepare students for a number of certification exams needed or employment in a variety of HVACR occupations.

**Manufacturing Systems I & II**

Suggested Grade Levels: 11, 12

1 Year Program

Students participate in individual and team activities to create products that demonstrate the critical elements of manufacturing.

**Masonry I & II**

Suggested Grade Levels: 10, 11, 12

1 Year Program

Students learn to use hand tools such as trowels, levels, and chisels and power tools such as concrete mixers and masonry cutters to lay brick, concrete block, tile and related materials.

**Precision Machining I & II**

Suggested Grade Levels: 11

2 Year Program

Students learn the basics of industrial safety and environmental protection; planning, management, and performance of machining jobs; quality control; general maintenance; engineering drawings and sketches; and application of measurements, metalworking theory, properties of materials, and principles of CNC.

**Small Engine Technology I & II**

Suggested Grade Levels: 9, 10, 11, 12

1 Year Program

Students learn to safely maintain and repair small internal-combustion engines used on portable power equipment such as lawnmowers, string trimmers, rotary tillers, outboard engines, and other two- and four-cycle engines. Students diagnose and service manual starting systems, ignition systems, cooling systems, and exhaust systems.

**Welding I & II**

Suggested Grade Levels: 11

2 Year Program

Mig, Tig & Arc welding from blueprints, diagrams and specs. Students in Welding I & II are taught to use manual welding, cutting, and electric arc welding processes to fabricate and weld metal parts according to diagrams, blueprints, and specifications. Students will also receive all safety-related practices and techniques, including the OSHA 10 card.

# **SVGS Course Guide 2019-2020**



Shenandoah Valley Governor's School serves approximately 225 talented 11th and 12th grade students from Augusta County, Staunton and Waynesboro. Twelve full-time and numerous part-time adjunct instructors work with the students.

SVGS provides a supportive and challenging environment for local gifted and talented students to nurture and develop their talents, expand their knowledge, improve critical thinking skills, and foster their sense of personal and social responsibility. Students choose one of two parallel programs, Sciences (science, technology, engineering, and math) or Arts and Humanities.

The **Sciences (STEM) program** requires students to complete at least three (3) credits each year, one in each of the core areas. Students may choose an additional credit as an optional independent study. Returning seniors may complete four credits in the core areas.

The **Arts (Arts & Humanities) program** requires students to complete three - four (4) credits in one of three areas, Humanities, Fine Arts or Performance Arts. Student in each area complete a humanities course, which addresses the Standards of Learning for 11<sup>th</sup> or 12<sup>th</sup> grade English, as well as appropriate studio classes, crafts and skills class, humanities classes, and arts appreciation classes.

SVGS has identified nine skills as critical to life-long learning and performance in any academic discipline and profession. These skills are cultivated through exceptional learning experiences at SVGS and are listed below:

- ✓ Intellectual Curiosity
- ✓ Intellectual Independence
- ✓ Persistence and Perseverance
- ✓ Critical Analysis and Reflection
- ✓ Problem Solving
- ✓ Leadership and Collaboration
- ✓ Communication
- ✓ Digital Literacy
- ✓ Social and Ethical Responsibility

SVGS students are selected through a competitive admissions process based on multiple criteria such as academic performance, talent, interests, and teacher recommendations. Admissions is offered to approximately 65% of all applicants.

Students apply during their sophomore or junior year. Applications are available through high school guidance counselors and on the SVGS web page December 1 of each year and are due February 20 of the following year.

## **HUMANITIES**

### **Humanities I\* (152125, 1 English credit)**

#### **Grade 11**

Humanities I introduces students to the rigors of college-level academic writing and critical thinking. In the fall, students explore essential texts centered on timely issues such as education, language, gender and society, and ethics and morality. Class discussions form the cornerstone of exploring ideas and give students the opportunity to share insights and to appreciate others' perspectives. Students then generate their own essay topics and take those topics through the writing process: drafting, peer editing, conferencing with the teacher, rethinking, and revising. Later in the year, students transition to the course's literary focus with texts that reflect the emergence and evolution of the American Dream. These works help students understand the unique qualities of the American spirit and its relevance today. As part of the course, students gain experience in working with literary criticism to develop their growing understanding of what it means to make thoughtful assertions about texts and to be able to

support those assertions. Essays require students to incorporate criticism as a means of supporting their own original observations. **This class has two state required end-of-course Standards of Learning tests: Reading and Writing.** *Blue Ridge Community College dual-enrollment credit available at student's own expense (ENG 111 & ENG 112, 3 credits each, total 6 credits).*

### **Humanities II\* (152225, 1 English credit)**

#### **Grade 12**

Humanities II builds on the composition and critical thinking skills students have established in Humanities I. Course content is focused on having students explore monsters and the literary imagination—the connection between monsters and the societies which create and perpetuate them. Texts reflect the chronological evolution of monsters, from Grendel in Beowulf to the zombie apocalypse in World War Z, and invite students to consider the psychological and cultural implications of monstrosity on society. Students continue to explore literary criticism as a means of supporting their original approaches to essays with an emphasis on seeking and using relevant digital sources effectively. *Blue Ridge Community College dual-enrollment credit available at student's own expense (HUM 111, 3 credits).*

### **Humanities in Western Culture\* (231530, 1 Elective credit)**

#### **Grade 11**

Governor's School Humanities in Western Culture (2315) - This course approaches an introductory survey of the humanities in western culture by focusing on significant events, styles, movements, and figures in western arts and philosophy. From the thinkers, writers, and artists of ancient Greece who created the foundations of western culture, we'll follow the journey from them through to our own contemporary ideas, styles, and the ever-growing variety of expressive modes and media. *Blue Ridge Community College dual-enrollment credit available at student's own expense (HUM 201, 3 credits).*

### **Psychology (425430, 1 Elective credit)**

#### **Grade 11**

This course is about you. We will work to understand about human nature – how one's brain works and how that supports their mind. This course introduces students to the scientific study of how we feel and act and to the fundamental knowledge of major concepts, theory, history, current trends in understanding human behavior and mental processes. Students will learn about the methods psychologists use to find the answers to questions about brain function and its relationship to behavior, perception, motivation, cognition, learning, personality, social and mental health. Students will learn to think critically about psychological evidence, to evaluate its validity and to apply its relevance to important issues in their own life. Students will develop insight into their own and others' behavior and mental processes and apply effective strategies for self-management and self-improvement. Studies also include the development of the individual from conception to death and follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth. *Students who have successfully completed the BRCC prerequisites may opt to take this class for credit (PSYC 200 & PSYC 230, 3 credits each, total of 6 credits) at student's own expense.*

### **Communications\* (425430, 1 Elective credit)**

#### **Grade 12**

A two-semester, continuous course in which you have the opportunity to acquire skills and explore communication theory, issues, challenges, and practical applications. The primary focus during the first semester is upon rhetoric and public speaking. The second semester opens up to explore nonverbal, interpersonal, small-group, intercultural, and mass communication. *Blue Ridge Community College dual-enrollment credit available at student's own expense (CST 100 & CST 126, 3 credits each, total of 6 credits).*

### **Sociology\* (1 Elective credit)**

#### **Grade 12**

**(1151)** - A two-semester, continuous course in which you have the opportunity to acquire skills and explore the fundamentals of social life, significant research and theory in areas such as culture, social structure, socialization, deviance, social stratification, and social institutions. Students may opt to take this class for BRCC credit (SOC 200, 3 credits) at their own expense. *Blue Ridge Community College dual-enrollment credit available at student's own expense (SOC 200, 3 credits).*



## **FINE ARTS**

### **Studio Art I\* (915000, 1 Elective credit)**

#### **Grade 11**

##### **Prerequisite: None**

Students study many styles, topics, and techniques using a wide variety of media with the intention of receiving a breadth of knowledge from which to develop their own personal style. Emphasis is on basic skills development, self-expression and experimenting with materials and techniques. Students focus on art production using two- and three-dimensional media and building upon their prior studio experience. A portion of class time is devoted to improvement of basic drawing and design skills. The students begin developing a body of work to use for their portfolio. Students utilize the language of the visual arts and understand, evaluate, and celebrate art in its historical and cultural context as a multicultural means of communication. Students develop critical thinking and communication skills as they articulate their personal responses to the aesthetic qualities of works of art.

### **Studio Art II\* (914715, 1 Elective credit)**

#### **Grade 12**

##### **Prerequisite: Studio Art I**

Students continue exploration of media and techniques with an emphasis on portfolio development through focused study of utilizing the elements and principles of design and in-depth investigation of self-selected topics. Students select an area of concentration in two-dimensional, three-dimensional, or drawing media, according to the course description for Advanced Placement Studio Art. A schedule of proposed projects in these concentration areas are individually arranged with their instructor. Students also complete project work assigned by the instructor and continue to develop drawing and design skills, especially color and theory, through regular exercises in these areas. Through these assignments and the student-directed concentration projects, students create a body of work representing their own personal style for their portfolio. Students may opt to take this course for Advanced Placement Studio Art credit at their own expense by submitting a portfolio completed through the work created in this course. *This course is also available as Advanced Placement.*

### **Survey of World Art I\* (916600, 1 Elective credit)**

#### **Grade 11, 12**

##### **Prerequisite: None**

This course is a traditional art history survey course. It covers artistic traditions from Prehistoric art to the transition from the art of the Middle Ages to the art of the Renaissance. Students will learn about art from an historical and cultural perspective during this period of time by examining major forms of artistic expression from world cultures including European, African, Near Eastern, Asian, and Central, South, and Native American. Students will analyze and critique these artistic styles in architecture, sculpture, painting, and other art media. Part of the course is also devoted to art appreciation. Students develop skills in evaluation and judgment through increased knowledge of the range of media, techniques, and stylistic approaches utilized by artists. Students will study aesthetics and criticism, in addition to art history. *Blue Ridge Community College dual-enrollment credit available at student's own expense (ART 201, 3 credits).*

### **Survey of World Art II\* (916700, 1 Elective credit)**

#### **Grade 11, 12**

##### **Prerequisite: Survey of World Art I**

This course is an introduction to art and architecture of the world from the Renaissance through Modern ages, including European Renaissance, Baroque, Enlightenment, 19th and 20th centuries, as well as Asian and African arts. Students will analyze and critique these artistic styles in architecture, sculpture, painting, and other art media. Part of the course is also devoted to art appreciation. Students develop skills in evaluation and judgment through increased knowledge of the range of media, techniques, and stylistic approaches utilized by artists. Students will study aesthetics and criticism, in addition to art history. They will learn to analyze, interpret, and judge. *Blue Ridge Community College dual-enrollment credit available at student's own expense (ART 202, 3 credits).*

### **Art Craft and Skills Workshops I/II\* (916300/916400, 1 Elective credit)**

#### **Grade 11-12**

##### **Prerequisite: None**

Students will specialize in exploration of specific media and techniques through study with guest professional artists who are willing to share their knowledge and skills with them. Students will be offered two- and three-dimensional topics on a six to eight week basis. Classes may be taught at SVGS or may be taught at

studio spaces in the community. By working with professional artists, students will learn about the career of an artist and the experience of working in the art world. The students also receive an in-depth studio experience in which experimentation, exploration, and individual development are encouraged.

## **MATHEMATICS**

### **Pre-Calculus\* (316220, 1 Mathematics credit)**

#### **Grade 11**

Students increase their understanding of functions and their characteristics including graphing techniques, using exponential, logarithmic and trigonometric functions to solve application problems, arithmetic and geometric sequences and series, mathematical induction, limits, first and second order derivatives, and integration. Students explore the use of mathematics in the natural sciences, thus fostering an application-oriented approach to mathematics that is enhanced through the use of technology. Students make extensive use of technology as an integral part of their learning. Students improve their facility with graphing calculators and the computer packages, *Maple* and *Excel*.

### **Calculus\* (317725, 1 Mathematics credit)**

#### **Grade 11 or 12**

#### **Prerequisite: Any Pre-calculus course**

Students become proficient with limits, the derivative and differentiation techniques, the integral and integration techniques, basic applications of differentiation and integration, and infinite series, including Taylor Series. Students explore the fundamental relationship between the derivative, the integral, and the Riemann Sum. Students begin their study of multidimensional calculus including vectors and parametric equations. Students enhance their learning through computer-based activities utilizing *Maple* and *Excel*. *Blue Ridge Community College dual-enrollment credit available at student's own expense (MTH 263-264, 4 credits each, total of 8 credits).*

### **AP Calculus BC\* (317730, 1 Mathematics credit)**

#### **Grade 11 or 12**

#### **Prerequisite: A SVGS or dual-enrollment Pre-Calculus class (grade of A- or better). Prerequisites may be waived by the Director.**

Students master limits, derivatives and anti-derivatives of polynomial, exponential and trigonometric functions and their inverses, as well as parametric, polar and vector functions for planar curves; techniques of differentiation and anti-differentiation; continuity of functions and the Intermediate Value Theorem and Mean Value Theorem; Fundamental Theorem of Calculus; physical applications of derivatives and anti-derivatives; series of constants and tests for convergence of series; Taylor's series approximations of functions with radii of convergence and error bounding. Students become proficient with *Maple* and *Excel*. This course prepares students to take the BC version of the Advanced Placement Calculus test, which is a required activity.

### **Statistics\* (319220, 1 Mathematics credit)**

#### **Grade 12**

#### **Prerequisite: completion of Pre-Calculus (grade of C or better) and prior completion or concurrent enrollment in any Calculus class.**

Students become proficient with the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Four broad themes woven throughout the course are experimental design, measures of central tendency, anticipating patterns, mathematic modeling and statistical inference. Students enhance their understanding through the use of computer software packages such as *Excel* and *JMP*, which are used extensively to analyze, display and aide in the interpretation of data. This course prepares students to take the Advanced Placement Statistics test, which is a required activity. *Blue Ridge Community College dual-enrollment credit available at student's own expense (MTH 245-246, 3 credits each, total of 6 credits).*

### **Discrete Mathematics\* (315410, 1 Mathematics credit)**

#### **Grade 12**

#### **Strongly recommended for students taking AP Computer Science**

Discrete Mathematics is the branch of mathematics dealing with objects that can assume only distinct, separated values. This course offers a nice counterpoint to the study of continuous mathematics that students pursue in calculus. Students will study logic, set theory, and matrices. Students will understand elementary number theory, the basic techniques of proof, and the basics of counting including combinatorics and probability. The ideas of discrete mathematics inform the study of computer science and this course will emphasize the connections

between them. It is strongly recommended for students taking AP Computer Science. *James Madison University dual enrollment credit available (Math/CS 227) at student's own expense.*

**Advanced Calculus: Multivariable Calculus\* (317800, 1 Mathematics credit)**

**Grade 12**

***Prerequisite: A.P. Calculus B.C. or SVGS Calculus (grade of B or better).***

Students apply concepts learned during the first year of calculus to advanced problems in multi-dimensional analysis. Students investigate topics including rectangular, spherical and cylindrical coordinates, three-dimensional vectors, partial differentiation, multiple integrals and matrices. Students' understanding of multi-dimensional mathematics is enhanced with computer visualization techniques. This course is designed for students who have exceptional math skills.

**Mathematical Modeling\* (1 Mathematics credit)**

**Grade 12**

***Prerequisite: A.P. Calculus B.C. or SVGS Calculus (grade of B or better).***

Mathematical modeling is an area of applied mathematics that uses mathematical tools for exploring and studying real world problems. It is the process of applying mathematical reasoning to understand some aspects of our physical, biological, social, and economic environment. In this course, students will study and create models, analyze the assumptions used in forming those models, and test the models against real-world data. Students will utilize mathematics from a variety of different mathematical branches.

**PERFORMING ARTS**

**Acting I\* (143525, 1 Elective credit)**

**Grade 11, Prerequisite: None**

Acting is a craft involving skills that can benefit everyone. Through this course, students will explore acting technique that may be used to further a career, as well as improving their abilities to communicate, create, focus, analyze, carry themselves with confidence, and work with others effectively. Students will have the opportunity to explore the fundamentals of the acting process, including basic terminology, use of voice and body, creativity and imagination, working/communicating with an ensemble, analyzing a dramatic text, and creating and portraying characters.

**Acting II\* (144010, 1 Elective credit)**

**Grade 12**

***Prerequisite: Acting I***

Students will review and expand upon basic stage terminology, the importance of ensemble, scene and character analysis, the rehearsal process, criticism, audition preparation, and acting as a business. Students will work primarily with Michael Shurtleff's Audition and Melissa Bruder's A Practical Handbook for the Actor, as well as with any scenes and monologues selected or assigned from various plays. The emphasis of Studio Acting II will be on preparation for collegiate and professional auditions; refinement of rehearsal and performance practices culminating in a senior showcase, familiarization with acting techniques that a working actor needs; and exploration of different styles of acting that may arise in collegiate and professional theatre situations, including the methods of the major acting teachers.

**Craft and Skills Workshops I/II\* (144910/144920, 1 Elective credit)**

**Grade 11 and 12, Prerequisite: None**

Students work with guest artists and practicing professionals on location in diverse acting spaces, including professional theatres. Students develop their skills in areas including voice and diction, Shakespeare, stage combat, movement, dance, design for the stage (lighting, costumes, set, and sound), puppetry and mask work, street theatre, children's theatre, improvisation, acting styles, and related audio-visual media skills. Students develop an understanding of life as a professional artist. *[Note: Due to the importance of basic skills such as voice and movement, some Skills and Craft course offerings will be mandatory for first-year students.]*

**Introduction to Theatre\* (144825, 1 Elective credit)**

**Grade 11, Prerequisite: None**

This course provides an overview of the theater as an art form, including historical and production points of view. It is designed as: (1) an introduction to the broad spectrum of the collaborative theatrical crafts including acting, playwriting, directing, designing (set, lighting, costuming, sound), (2) a brief overview of the history of performance

and theatrical traditions, and (3) a vehicle for theatre appreciation. *Blue Ridge Community College dual-enrollment credit available at student's own expense (CST 130, 3 credits).*

**Dramatic Theory and Criticism\* (144325, 1 Elective credit)**

**Grade 12**

***Prerequisite: Introduction to Theatre or demonstrate exceptional talent and discipline and/or a thorough background in theatre history and dramatic literature.***

Students will use a variety of critical tools and perceptual viewpoints as a basis for making informed judgments about theatre art. With Aristotle's Poetics as the starting point, students will read and discuss works of dramatic literature, criticism, and dramaturgy, observe and critique theatre performances (both live and filmed), and research and compose play analyses, creative projects, and production concepts. This course focuses on major western theatrical periods, including 20th century reactions against and modifications to realism.

**SCIENCE**

**College Physics\* (451025, 1 Science credit)**

**Grade 11 or 12**

***Prerequisite: Algebra II/Trigonometry***

Students conduct extensive laboratory investigations on topics including Newtonian mechanics, optics, electromagnetism, and materials science. Students' investigations and assignments integrate the physical sciences with mathematics. Students enhance their learning through the use of technology to analyze and present data, and simulate experiments. *Blue Ridge Community College dual-enrollment credit available at student's own expense (PHYS 201 & PHYS 202, 4 credits each, total of 8 credits).*

**AP Chemistry\* (447000, 1 Science credit)**

**Grade 12**

Advanced Placement Chemistry is designed to be equivalent to a first-year college chemistry course. Students will participate in lectures, demonstrations, activities & extensive laboratory experiments on topics such as atomic structure & quantum theory, chemical compounds, reactions & stoichiometry, states of matter & solutions, thermo-chemistry & kinetics, equilibrium, acids & Bases, electro-chemistry, nuclear Chemistry & organic Chemistry. AP Chemistry also involves applying these concepts to "every-day" life with projects such as calorimetry, efficiency, crystal growth, catalysis and water treatment.

**AP Environmental Science\* (427025, 1 Science credit)**

**Grade 12**

***Prerequisite: Biology, Chemistry, Physics and Pre-Calculus, completion of Earth Science is strongly recommended***

Students explore geology, paleontology, atmospheric science, ecology, and technology in the context of environmental problems facing humans today. Students conduct extensive laboratory and field studies including water and air quality, soil processes, population dynamics, and community and ecosystem processes. Students enhance their learning through the use of computer simulations and models, and the use of technology to analyze and present data. Students are prepared to take the Advanced Placement Environmental Science test, which is a required activity. *James Madison University dual enrollment credit available (ISAT 112, 3 credits) at student's own expense.*

**Molecular and Microbiology\* (432025, 1 Science credit)**

**Grade 12**

***Prerequisite: Biology, Chemistry, Physics (all with grades of B or better) and Pre-Calculus***

Students investigate fundamental life processes through the use and study of rapidly developing technologies such as genetic engineering, pharmaceutical developments, and treatment and prevention of infectious diseases. Students conduct extensive laboratory investigations on DNA extraction, gel electrophoresis, culture and identification of microbial organisms, and biochemistry. Students enhance their understanding of biological molecules through the use of mechanical and computer molecular modeling. Students become proficient in the use of technology to analyze and present data. *James Madison University dual enrollment credit available at student's own expense (ISAT 113, 3 credits).*

**Environmental Chemistry\* (447025, 1 Science credit)****Grade 11 or 12****Prerequisite: Physics*****This class is required of any SVGS student who will not otherwise have completed high school chemistry prior to graduation.***

Students master basic principles of chemistry and statistical analysis in the context of the chemical and physical characteristics of water, soils, rocks, the atmosphere and natural fuels. Students conduct extensive laboratory analysis and field sampling utilizing EPA methods where feasible. Students investigate anthropogenic influences on natural materials cycles from the viewpoint of the classical chemist. Students enhance their learning through the use of instrumental analysis, which supplements traditional micro and wet chemistry methods. Students will demonstrate mastery of computerized data recording, calculation and analysis; graphical presentation; researching primary and popular literature; and formal report writing and scientific presentation. This class is required of any SVGS student who will not otherwise have completed high school chemistry prior to graduation. *James Madison University dual enrollment credit available (ISAT 112, 3 credits) at student's own expense.*

**Modern Physics\* (452020, 1 Science credit)****Grade 12****Prerequisite: GS Physics, and GS Pre-Calculus or GS Calculus (grades of A- or better). Co-requisite: Calculus or above (offered pending enrollment).**

Students explore the theoretical study of Special Relativity and Quantum Mechanics with an emphasis on computer models of the processes involved. Topics covered include Special Relativity, the Schrödinger equation, tunneling phenomena, General Relativity, Elementary Particle Physics, and the Hydrogen Atom. Students enhance their learning through extensive laboratory investigations and simulations. Students become proficient in the use of technology to analyze and present data.

**Scientific Research\* (432120, 1 Science credit)****Grade 11****Prerequisite: None**

Students discover and put into practice research methods and engineering design. Students apply principles of the natural sciences and applied statistics in solving research and engineering problems. Students complete an individual research project, write a scientific paper, and submit their results for presentation at various venues, including the SVGS Research Symposium (participation is required), Regional Science Fair (participation is required) and Virginia Junior Academy of Science (optional, paper submission and participation, if accepted, is required). They make use of on-line libraries and review scholarly scientific resources.

**Advanced Scientific Research\* (461200 Grade 11 or 12, 1 Science credit)****Grade 12****Prerequisite: Gov. School Scientific Research**

Students extend their study of research methods through independent research and work with a scientific mentor. Students apply principles of the natural sciences and applied statistics in solving research and engineering problems. Students complete an individual research project, write a scientific paper, and submit their results for presentation at various venues, including the SVGS Research Symposium (participation is required), science fairs, and paper submission to student research journals for publication. They make use of on-line libraries and scholarly scientific resources.

**TECHNOLOGY****Advanced Technology\* (846620, 1 Elective credit)****Grade 12****Prerequisite: None**

The primary focus is the exploration of computer technology as a tool for communicating powerful ideas in mathematics and science. Students learn to animate in two-dimensions and build interactive presentations. Students will learn to create web sites and will develop an understanding of good design. Students will also explore digital photography and digital video production. Students will build pod-casts and other means of using MP3 players such as iPods. Students will develop projects in conjunction with their mathematics and science courses. Students will also be asked to discuss ethical issues related to modern technology and to learn vocabulary associated with computers.

**AP Computer Science (A)\* (318520, 1 Mathematics credit)****Grade 12**

**Prerequisite: completion of Pre-Calculus, Scientific Research and Engineering, and Physics (grades of A- or better) OR permission of the Director and Instructor.**

Students design, implement and interpret computer-based solutions to problems in several application areas using *Java*. Students become knowledgeable about programming concepts, algorithm designs, and documentation of the computer solution and proficient at writing and debugging code. The course material emphasizes those concepts outlined by the College Board and prepares students to take the Advanced Placement Computer Science test.

**Introduction to Computer Science (318400, 1 Mathematics credit)****Grade 11**

This course is designed to provide an introduction to two major areas of computer science – networking and programming. Students will first examine the parts of a computer (software/hardware), how each functions, and what constitutes a good example of those parts. Students will then examine how to build a network by adding computers to a small network in the class and connecting them to the internet. Additionally, students will create mobile apps using App Inventor and will use Python to develop coding and programming skills to creatively interact with technology. This course also serves to provide background for advanced courses in network security and AP Computer Science available at SVGS in the second year.

**Cyber Security and Software Operations (103023, 1 Elective credit)****Grade 12**

Students are provided instruction in the basics of computer networking, operating systems, system administration and network security. Course content includes an overview of networking, operating systems and other software applications, learning to perform common administrative functions in scripting environments. Students will examine PHP and PERL in the context of an Apache webserver, and use GNU BASH and Microsoft Powershell scripting from the command line to complete every day administrative functions. Course content also includes risk management, network security policy, security training, security keys, confidentiality, integrity, access, accountability, and audit ability. Participation in various industry sponsored contests *such as Cyber Challenge and other contests* are expected. *Course offering is dependent on student interest, sufficient enrollment and staffing.*

**Engineering I\* (849130, 1 Elective credit)****Grade 11**

**Prerequisite: None**

This course is an introductory course designed to help aspiring engineers develop knowledge, skills and understanding of the engineering design process. Key topics include the historical significance of engineering, along with the modern engineering skills, tools and practices related to civil, mechanical, environmental and electrical engineering. Emphasis will be on teamwork and developing the ability to analyze complex problems and implementing effective solutions. This is a project-based class that will require independent thinking, communication & documentation.

**Engineering II\* (849140, 1 Elective credit)****Grade 12**

**Prerequisite: Engineering I**

Students develop the “thought-work” behind applying concepts of multi-disciplinary engineering methods. Students are immediately immersed in advanced tenements of: static and dynamic equilibrium of particles, tools, and complex elements (like the human body); use of Computer Aided Design in basic engineering modeling; test and evaluation concepts; evaluation of structural and mechanical relationships; evaluation and application of problem design criteria, design for failure concepts, precision and safety-factors mark some but are not inclusive of all the principals touched-on during the course. Engineering Methodology combines mathematics and the physical sciences to resolve problems and reverse engineer solutions. Students complete a dozen team Design Projects and solutions are presented via CAD, schematics, and detailed technical write-ups. Individuals improve math, physics and material science skills by combining them to resolve problems.

**Geospatial Information Systems\* (849800, 1 Elective credit)****Grade 12**

**Prerequisite: None**

Students will develop the skills and knowledge necessary to make use of geographic technologies such as geospatial information systems (GIS), global positioning systems (GPS), and remote sensing. The class will focus on applying GIS technology to different fields, such as environmental science, city planning, ecology and many others. Students will work with a variety of data sets, collect data, and develop their own GIS research project. *Students in this class must enroll for dual enrollment credit at James Madison University at student's expense (GEOG 161, 3 credits).*

**Senior Capstone (229973, 1 Elective credit)**

**Grade 12 (required for returning seniors only)**

***Prerequisite: None***

The Senior Capstone is a long-term project embedded in your SVGS curriculum. Its purpose is to encourage you to use your academic work to design and carry out an original, significant, real-life, project outside the classroom. The project will demonstrate your ability to synthesize and make use of all that you are learning at SVGS by designing and implementing your own authentic learning experience. This course supports the completion of your capstone project which will give you the opportunity to challenge yourself to put together your interests, skills and abilities and apply them to a real-life project. Students will network and make professional connections in a field that interests them as a possible career; grow in their ability and skill to plan and execute a project of this nature, including: organizing and managing a complex project; finding resources; doing research; creative problem-solving; collaborating; managing time; using technology effectively; communicating, and people skills; presenting their work to others; and honest and constructive self-evaluation.