Frederick County Public Schools

COURSE CATALOGUE

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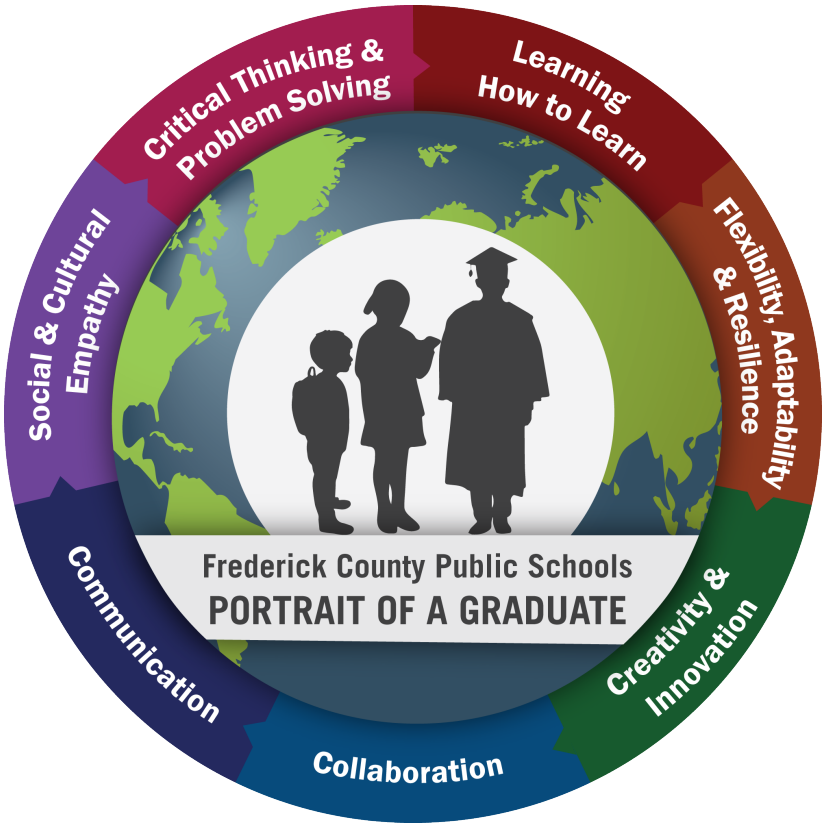

Dear Families,

We are excited to share the Frederick County Public Schools Program of Studies for middle and high school students. This information outlines the curriculum to guide your child's education through these important formative years.

Our curriculum is designed to equip students with the knowledge, skills, and critical thinking abilities necessary for college, career, and citizenship success. A well-rounded education, rich in academic and extracurricular opportunities, is essential for developing well-balanced and engaged young adults.

The Program of Studies reflects our belief in the potential of every student. It is designed to provide a challenging and supportive learning environment that incorporates rigorous academic standards, while also emphasizing creativity, innovation, and problem-solving. We believe that by fostering a love of learning, we can empower students to reach their full potential, no matter their starting point. We are committed to helping every student succeed.

We encourage you to review the Program of Studies carefully and discuss it with your child. Students should understand the course options available to them and how those choices align with their personal and academic goals.

If you have any questions or would like to learn more about the curriculum, please do not hesitate to contact your child's school counselor. Your partnership is crucial in helping your child make informed decisions about their academic future.

Sincerely,

Juliette B. Myers, Ph.D.
Director of Middle and Secondary Instructional Services
Frederick County Public Schools

Graduation Requirements

The requirements for a student to earn a diploma from an FCPS high school shall be those in effect when the student enters the ninth grade for the first time.

Rising 6th – 12th Grade Graduating Classes of 2023-29

STANDARD DIPLOMA
22 CREDITS

Subject	Credits
ENGLISH English grades 9-12 must be taken for credit in order to graduate. In addition, students must complete and pass the Virginia Standards of Learning assessments for Reading and Writing. Typically, these assessments occur in grade 11. Students have the option of general, honors, AP, and dual enrolled courses depending on grade level.	**4**
MATH Courses completed to satisfy this requirement shall include at least two different course selections from among Algebra I, geometry, algebra functions, and data analysis, Algebra II, or other mathematics courses approved by the board to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit.	**3**
LABORATORY SCIENCE Courses shall include three selections from two different science disciplines: 1) Earth Science, 2) Biology, 3) Chemistry, and 4) Physics.	**3**
HISTORY/SOCIAL SCIENCE US and VA History (required) US and VA Government (required) Students may choose from two of the following courses: World Geography, World History I, World History II, AP World History	**4**
HEALTH AND P.E. All students must receive training in first aid, CPR, and AED. This training will be included in the FCPS Health and PE 10 curriculum.	**2**
ECONOMICS AND PERSONAL FINANCE All students must complete one online course prior to graduation. Students completing the required FCPS Economics and Personal Finance course satisfy this requirement.	**1**
FINE ARTS/WORLD LANGUAGES/CAREER AND TECHNICAL EDUCATION See course listing for options	**2**
ELECTIVES Students graduating with a Standard Diploma must include at least two sequential electives which may include courses from a variety of options.	**3**
Of the total credits shown above, students must earn a minimum of FIVE VERIFIED CREDITS from the following disciplines:	
English 11 *Writing & Reading/Literature/Research	**2**
Mathematics	**1**
Science	**1**
History/Social Science	**1**

ADVANCED STUDIES DIPLOMA
26 CREDITS

Subject	Credits
ENGLISH English grades 9-12 must be taken for credit in order to graduate. In addition, students must complete and pass the Virginia Standards of Learning assessments for Reading and Writing. Typically, these assessments occur in grade 11. Students have the option of general, honors, AP, and dual enrolled courses depending on grade level.	**4**
MATH Courses completed satisfying this requirement shall include at least three different course selections from among Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II. The board shall approve courses to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit.	**4**

Subject	Credits
LABORATORY SCIENCE Courses shall include four selections from three different science disciplines: 1) Earth Science, 2) Biology, 3) Chemistry, and 4) Physics	**4**
HISTORY/SOCIAL SCIENCE US and VA History (required) US and VA Government (required) Students may choose from two of the following courses: World Geography, World History I, World History II, AP World History	**4**
HEALTH AND P.E. All students must receive training in first aid, CPR, and AED. This training will be included in the FCPS Health and PE 10 curriculum.	**2**
ECONOMICS AND PERSONAL FINANCE All students must complete one online course prior to graduation. Students completing the required FCPS Economics and Personal Finance course satisfy this requirement.	**1**
WORLD LANGUAGES Three years of one language or two years each of two languages.	**3 or 4**
FINE ARTS/WORLD LANGUAGES/CAREER AND TECHNICAL EDUCATION See course listing for options; See additional graduation requirements.	**1**
ELECTIVES Students graduating with an Advanced Diploma must include at least two sequential electives which may include courses from a variety of options.	**2 or 3**
Of the total credits shown above, students must earn a minimum of FIVE VERIFIED CREDITS from the following disciplines:	
English 11 *Writing & Reading/Literature/Research	**2**
Mathematics	**1**
Science	**1**
History/Social Science	**1**

VERIFIED CREDIT means passing the course and the end-of-course SOL test.

Additional Graduation Requirements

Requirement	Description
Advanced Placement, Honors, or Career and Technical Education Credential	In accordance with the Standards of Quality, students shall (i) complete an Advanced Placement, honors, or dual enrollment course; (ii) complete a high-quality work-based learning experience as established by board guidance on work-based learning; or (iii) earn a career and technical education credential approved by the board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the advanced studies diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment.
Virtual Course	Students shall successfully complete one virtual course, which may be a non-credit-bearing course or a required or elective credit-bearing course that is offered online.
Training in emergency first aid, cardiopulmonary resuscitation (CPR), and the use of automated external defibrillators (AED)	Students shall be trained in emergency first aid, CPR, and the use of AED, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation. Students with an IEP or 504 Plan that documents that they cannot successfully complete this training shall be granted a waiver from this graduation requirement.
Demonstration of the Five Cs	Students shall acquire and demonstrate foundational skills in critical thinking, creative thinking, collaboration, communication, and citizenship in accordance with the Profile of a Virginia Graduate approved by the board.

Credit Accommodations for Students with Disabilities

Credit accommodations provide alternatives for students with disabilities in earning the standard and verified credits required to graduate with either an Advanced Studies or Standard Diploma. Credit accommodations for students with disabilities may include

- Alternative courses to meet the standard credit requirements
- Modifications to the requirements for locally awarded verified credits
- Additional tests approved by the Board of Education for earning verified credits
- Adjusted cut scores on tests for earning verified credits
- Allowance of work-based learning experiences through career and technical education (CTE) courses

Advanced Studies Diploma with Credit Accommodations Requirements

There is one credit accommodation available for the advanced studies diploma. This alternative for students to meet the world language requirement is available to students with an individualized education program (IEP) that specifies a credit accommodation for world languages.

§ 22.1-253.13:4. Permit a student who is pursuing an Advanced Studies Diploma and whose individualized education program specifies a credit accommodation for world language to substitute two standard units of credit in computer science for two standard units of credit in a world language. For any student that elects to substitute a credit in computer science for credit in world language, his or her school counselor must provide notice to the student and parent or guardian of possible impacts related to college entrance requirements.

Standard Diploma with Credit Accommodations Requirements

While credit accommodations provide alternate pathways and flexibility, students receiving accommodations must earn the 22 standard credits and five verified credits required to graduate with a Standard Diploma.

Eligibility Criteria: Credit accommodations for the Standard Diploma shall be determined by the student's Individualized Education Program (IEP) team or 504 plan committee, including the student where appropriate, at any point after the student's eighth-grade year. The school must secure the informed written consent of the parent/guardian and the student, as appropriate, to choose credit accommodations after a review of the student's academic history and full disclosure of the student's options.

The student must meet the following criteria to be eligible to receive credit accommodations for the Standard Diploma:

- Student must have a current IEP or 504 plan with standards-based content goals.
- Student has a disability that precludes him or her from achieving and progressing commensurate with grade level expectations but is learning on grade level content.
- Student needs significant instructional support to access grade-level Standards of Learning (SOL) content and to show progress.
- Based on multiple objective measures of past performance, students might not be expected to achieve the required standard and verified units of credit within the standard time frame. For more information, please see the student's school counselor or case manager.

Applied Studies Diploma

The Applied Studies Diploma is a diploma option available to students identified as having a disability who complete the requirements of their individualized education programs (IEPs) and meet certain requirements prescribed by the Board of Education pursuant to regulations but do not meet the requirements for any named diploma. Understanding the Applied Studies Diploma

Certificate of Completion

Students who successfully earn the required number of standard credits but not the required number of “verified” credits are eligible to receive a Certificate of Completion. Students who receive the Certificate of Completion are not eligible for diploma seals. Students who successfully fulfill the requirements for earning a Certificate of Completion will be allowed to participate in graduation ceremonies.

General Education Development Credential (GED)

Students who are at least 16 years of age may request to enroll in an Individualized Alternative Education Program (ISAEP) that leads to the opportunity to earn a high school equivalency (HSE) credential. Currently, the GED® test is the only approved HSE examination in Virginia. After required counseling by the student support specialist, the student, parent, and a school division representative at Dowell J. Howard Center, the student is administered the GED Ready® Practice Test along with an approved test of basic reading skills. If the required scores for entry are attained by the student, an ISAEP will be developed with the student, parent, ISAEP teacher, and administrator at Dowell J. Howard Center. The flexible-hour program housed at Dowell J. Howard Center will enable students to meet the requirements of their ISAEP and prepare them for the GED® test. Once students successfully fulfill their ISAEP and earn their GED®, compulsory attendance requirements are considered to have been fulfilled.

Graduation (Diploma) Seals of Achievement

Students who demonstrate academic excellence and outstanding achievement may be eligible for one or more of the following awards:

- **The Governor's Seal** shall be 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 shall earn the student at least nine transferable college credits in Advanced Placement (AP) or dual enrollment courses.
- **The Board of Education Seal** shall be awarded to students who complete the requirements for a Standard Diploma or an Advanced Studies Diploma with an average grade of "A."
- **The Board of Education's Career and Technical Education Seal** shall be awarded to students who earn a Standard Diploma or an 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 or (i) 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 or (ii) acquire a professional license in that career and technical education field from the Commonwealth of Virginia. The Board shall approve all professional licenses and examinations used to satisfy these requirements.
- **The Board of Education's Science, Technology, Engineering, and Mathematics (STEM) Seal** shall be awarded to students who earn either a Standard Diploma or an Advanced Studies Diploma and satisfy all math and science requirements for the Advanced Studies diploma with a “B” average or better in all course work, successfully complete a 50 hour or more work-based learning opportunity in a STEM area, and satisfy all requirements for a Career and Technical Education concentration (a concentration is a coherent sequence of two or more state-approved courses) and pass one of the following: a Board of Education CTE STEM-H credential examination, or an examination approved by the Board that confers a college-level credit in a STEM field.
- **The Board of Education's Seal for Excellence in Civics Education** shall be awarded to students who earn either a Standard Diploma or an Advanced Studies Diploma and (i) complete Virginia and United States History and Virginia and the United States government courses with a grade of "B" or higher; (ii) have good attendance and no disciplinary infractions as determined by local school board policies; and (iii) complete 50 hours of voluntary participation in community service or extracurricular activities. Activities that satisfy the requirements of clause (iii) of this subdivision include (a) volunteering for a charitable or religious organization that provides services to the poor,

sick, or less fortunate; (b) participating in Boy Scouts, Girl Scouts, or similar youth organizations; (c) participating in JROTC; (d) participating in political campaigns or government internships, or Boys State, Girls State, or Model General Assembly; or (e) participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation shall be deemed to have met this community service requirement.

- **The Board of Education's Seal of Biliteracy** shall be awarded to students who demonstrate proficiency in English and at least one other language and meet additional criteria established by the board.
- **The Board of Education's Seal for Excellence in Science and the Environment** shall be awarded to students who earn either a Standard Diploma or Advanced Studies Diploma and (i) complete at least three different first-level board-approved laboratory science courses and at least one rigorous advanced-level or postsecondary-level laboratory science course, each with a grade of "B" or higher; (ii) complete laboratory or field-science research and present that research in a formal, juried setting; and (iii) complete at least 50 hours of voluntary participation in community service or extracurricular activities that involve the application of science such as environmental monitoring, protection, management, or restoration.

Middle School Courses

Art

Art I

This semester course is for 7th and 8th grade students. It is a required prerequisite course for Art II. The student will gain an understanding of the elements of art and have the ability to identify and utilize them through a variety of art processes such as drawing, painting, and three dimensional forms of expression. Students will also expand on the creative problem solving and critical thinking skills developed in Art 6. A fee is charged for consumable materials.
Grades Offered 7, 8

Art II

This semester course is for 7th and 8th grade students. The student will further develop an understanding of the art elements and have the ability to identify and utilize them through a variety of art processes such as drawing, painting, and three dimensional forms of expression. Students will expand on the skills developed in Art I. A fee is charged for consumable materials.
Grades Offered 7, 8

Introduction to Art

This course introduces students to different media and processes including drawing, painting, printmaking, clay, creative problem solving and critical thinking skills. Students will have the opportunity to expand upon these skills in Art I and Art II. A fee is charged for consumable materials.
Grades Offered 6

Select Art 6

This exploratory offered during one elective rotation is designed to challenge students with new media and varied techniques beyond the range of standard studies in relation to the elements of art and the principles of design. Students are selected through an evaluation process that includes a portfolio, student self-evaluation, and a variety of artistic evaluations. Students must be identified for gifted visual arts services in order to be accepted into the class.
Grades Offered 6

Select Art Foundations

This semester elective for seventh and eighth grade students is designed to challenge students with a focus on new media and varied techniques beyond the range of standard studies. Projects will investigate a variety of materials and art processes in relation to drawing, painting, and three-dimensional forms of expression. Students are selected through an evaluation process that includes a portfolio, student self-evaluation, and a variety of artistic evaluations or prior eligibility for gifted visual arts services. Students must be identified for gifted visual arts services in order to be accepted into the class. A fee is charged for consumable materials.
Grades Offered 7, 8

Select Art Studio

This advanced semester elective for seventh and eighth grade students is designed to challenge students with a focus on independent project development. Teacher-facilitated project development will lead students to develop a comprehensive portfolio of work based on a self-guided theme. Students must be identified for gifted visual arts services in order to be accepted into the class. A fee is charged for consumable materials.
Grades Offered 7, 8
Prerequisites
Select Art Foundations (9105)

Band

Band (Elective)

Band is open to all students, with or without previous experience. Students are offered guidance in the selection of an instrument. Instruments and other materials generally are furnished by the family. Band is a full-year class which may follow an alternating day schedule. Students are required to participate in one evening performance each semester.
Grades Offered 6

Beginning Band

Beginning Band is an accelerated band class open to all students who have no previous band experience. The course is a comprehensive study in basic technical skills, music reading, and technique. Students are offered guidance in the selection of an instrument. Instruments, accessories, and books are furnished by the home unless previous arrangements are made. At the end of the first semester, students may have the option to continue with beginning band or to audition for a vacancy in one of the other ensembles.
Grades Offered 7

Concert Band

The Concert Band is for those students who have progressed beyond the beginning stage, giving them further study in the development of technique and rhythmic accuracy. Attendance at performances is mandatory and is considered part of the student's grade. Instruments and materials must be furnished by the home.
Grades Offered 7, 8

Jazz Ensemble

The Jazz Ensemble is a select group of students who are interested in performing both jazz and popular music. Students who play trumpet, saxophone, trombone, piano, bass, electric guitar, or drum set may enroll by audition. A student vocalist may be selected. Public performances are scheduled throughout the year. Attendance at performances is considered part of the student's grade.
Grades Offered 7, 8

Percussion Ensemble

This course is open to percussionists by audition. Students receive advanced training in areas of concert and marching percussion. Students perform music specifically for percussion ensembles. Attendance at performances is mandatory and is considered part of the student's grade. Students must furnish sticks, a drum pad, and a stick bag.
Grades Offered 7, 8

Symphonic Band

The Symphonic Band is open to a few students in grade seven who have achieved a high degree of instrumental proficiency and who successfully have passed an audition consisting of basic scales, prepared music, and sight reading. This organization is the basis of the marching band that represents the school in public appearances. Attendance at performances is mandatory and is considered part of the student's grade.
Grades Offered 7

Symphonic Band

The Symphonic Band is open to students in the eighth grade who have achieved a high degree of instrumental proficiency and successfully passed an audition consisting of basic scales, prepared music, and sight-reading. This organization is the basis of the marching band which represents the school in public appearances. Attendance at performances is mandatory and is considered part of the student's grade.
Grades Offered 8

Chorus

Advanced Chorus (Select)

An audition is required for selection to this course. Only seventh and eighth grade students are placed in this group. The curriculum includes learning to produce a proper tone, singing in harmony, understanding basic music terminology, reading music and working together as a group. Students are required to participate in several nighttime and/or out-of-school performances throughout the year.
Grades Offered 7, 8

Beginning Chorus

This course is open to any seventh or eighth grade student. The curriculum includes learning to produce a proper singing tone, singing in unison and two- and/or three-part harmony, understanding music terminology, reading and understanding music notation, and working together as a music ensemble. This course is a half-year course. Students are required to participate in one evening performance each semester. Students may take the course both semesters.
Grades Offered 7, 8

Beginning Chorus

This course is open to any seventh or eighth grade student. The curriculum includes learning to produce a proper singing tone, singing in unison and two- and/or three-part harmony, understanding music terminology, reading and understanding music notation, and working together as a music ensemble. This course is a half-year course. Students are required to participate in one evening performance each semester. Students may take the course both semesters.
Grades Offered 7, 8

Intermediate Chorus

This course is open to any seventh or eighth grade student who meets the prerequisite experience. The curriculum includes learning to produce a proper singing tone, singing in two- and/or three-part harmony, understanding music terminology, reading and understanding music notation, and working together as a music ensemble. Students are required to participate in several evening and/or out-of-school performances throughout the year. Students in Select Chorus (9289) will not be permitted to take Intermediate Chorus (9285) at the same time.
Grades Offered 7, 8

Sixth Grade Chorus

This course is open to any sixth grade student. The curriculum includes learning to produce a proper singing tone, singing in unison and two-part harmony, understanding music terminology, reading and understanding music notation, and working together as a music ensemble. Students are required to participate in one evening performance each semester.
Grades Offered 6

English

English

The integrated language arts curriculum focuses on the use of accepted conventions of language, the writing process and reading of a wide selection of literature. Instruction is provided in research and problem-solving skills, vocabulary development within the context of literature, and speaking and listening skills. SOL tested course.
Grades Offered 7

English

The eighth grade program continues to build communication skills in reading, writing, listening, and speaking. Responding to literature and visual media and making connections between literature and its historical and cultural settings are stressed. The writing process, vocabulary development, the use of accepted conventions of English language and basic research skills continue to be emphasized. SOL tested course
Grades Offered 8

Exploring Journalism Skills

Exploring Journalism is designed for students to learn the various aspects of producing publications. This can include, but is not limited to, copywriting, photography, graphic arts, advertising, layout, and design. The course is taught through instruction in news, feature, and editorial writing. Students will create finished products which may include a newsletter, brochure, magazine, and photostory production. Students learn to use word processing, presentation, and publication software packages as well as local and worldwide network communication systems. This course is not offered at all schools.
Grades Offered 7, 8

Exploring Journalism Skills

Exploring Journalism is designed for students to learn the various aspects of producing publications. This can include, but is not limited to, copywriting, photography, graphic arts, advertising, layout, and design. The course is taught through instruction in news, feature, and editorial writing. Students will create finished products which may include a newsletter, brochure, magazine, and photostory production. Students learn to use word processing, presentation, and publication software packages as well as local and worldwide network communication systems. This course is not offered at all schools.
Grades Offered 7, 8

Language Arts 6

The sixth grade language arts course is based upon the English Reading and English Writing Standards of Learning. Instruction integrates the writing process, use of accepted conventions of language in writing and speaking, comprehension of a variety of written literature, and basic research skills. SOL tested course.
Grades Offered 6

Gifted

Gifted Academic Program (GAP) Research 2

This semester course, which students can take both semesters in 7th and 8th grades, is designed to help meet the needs of gifted middle school students by providing a challenge and degree of differentiation beyond what can be provided in the regular classroom. Instruction is above grade level and emphasizes higher ordered thinking skills. Students will use problem-finding and problem-solving skills to complete in-depth, interest-based research, compile and synthesize information, and create products that reflect the highest levels of thinking, and exceptionally deep understanding of content, processes, concepts, and theories. Students must be eligible for gifted academic services in order to be accepted into the class.
Credits 0.5
Grades Offered 7, 8

Gifted Academic Program (GAP) Transition to Middle School

This exploratory course is designed to help meet the academic and affective needs of gifted middle school sixth grade students. The curriculum for this course has been designed to help students develop coping strategies for learning encounters in middle school. This plan will be used with flexibility and fidelity based on school, student, and teacher needs and assessments. This course is designed to support English SOL 6.1 and 6.2. Students must be identified for gifted academic services in order to be accepted into the class.
Grades Offered 6

Health and Physical Education

Health and Physical Education

This course fosters life-long habits of personal health and wellness for all students. Emphasis is on participation in life-long team and individual sports. Students may purchase a uniform or wear a crew-neck shirt with sleeves, shorts without buttons or zippers that are mid-thigh length. Athletic shoes are required. In addition to physical education, there are pertinent health units, interspersed throughout the year, taught in the classroom with appropriate materials devoted to general health education.
Grades Offered 6

Health and Physical Education

This course fosters life-long habits of personal health and wellness for all students. Emphasis is on participation in life-long team and individual sports. Students may purchase a uniform or wear a crew-neck shirt with sleeves, shorts without buttons or zippers that are mid thigh length. Athletic shoes are required. In addition to physical education, there are pertinent health units interspersed throughout the year, taught in the classroom with appropriate materials devoted to general health education.
Grades Offered 7

Health and Physical Education

This course provides students with knowledge and skills necessary to participate in selected individual and team sports. Students may purchase a uniform or wear a crew-neck shirt with sleeves, shorts without buttons or zippers that are mid thigh length. Athletic shoes are required. In addition to physical education, pertinent health units are interspersed throughout the year and taught in the classroom with appropriate materials devoted to general health education.
Grades Offered 8

Math

Honors Algebra I

This is a high school credit course intended for students who successfully complete Math I/II and meet the testing criteria. It covers all Virginia Standards of Learning for Algebra I and additionally prepares students to pursue the highest levels of mathematics and science study in high school. Students who begin earning high school credit for mathematics in middle school are expected to continue their studies in mathematics through twelfth grade. SOL tested course.
Credits 1.0
Grades Offered 7, 8

Honors Geometry

This is a high school course intended for accelerated students who successfully complete Algebra I. The problems of this course are more challenging than those of the academic Geometry course. Congruent triangles, parallel lines, circles, areas and volumes, similarity, and techniques for writing proofs will be studied in depth. SOL tested course
Credits 1.0
Grades Offered 8

Middle School Math Course I

Course 1 emphasizes understanding math through problem solving. The content strands include number and number sense, computation and estimation, measurement, geometry, probability, statistics, and patterns, functions, and algebra. Students will use concrete materials and technologies to model and investigate concepts. Students will often work in teams on mathematical tasks, communicating their reasoning orally and in writing. Connections to real-life, other subjects, and between math strands are emphasized. SOL tested course
Grades Offered 6

Middle School Math Course I/II

Course 1/2 students will learn all of the Grade 6 and half of the Grade 7 Standards of Learning in this compacted course. This pathway will lead to Honors Algebra I in 8th grade which leads to the option to take college level and AP math courses in high school. Students will take the Math Grade 6 SOL assessment.
Grades Offered 6

Middle School Math Course II

Course 2 students solve tasks emphasizing rational numbers, consumer applications, proportional reasoning, 2-D and 3-D measurement and geometry, probability, and functional relationships. Students will use concrete materials and technologies to model and investigate concepts including integer operations and solving two-step equations and inequalities. Statistics emphasizes histograms, comparing them to other displays and forming inferences. The focus is on understanding math through problem solving. SOL tested course.
Grades Offered 7

Middle School Math Course II/III

Course II/III students will complete the Grade 7 and Grade 8 Standards of Learning in this compacted course. This pathway will lead to Honors Algebra I in 8th grade which leads to the option to take college-level and AP math courses in high school. Math Grade 8 SOL tested course.
Grades Offered 7

Middle School Math Course III

Course 3 provides the essential skills for successful entry into Algebra I. Topics include objectives from the number and number sense, computation and estimation, measurement and geometry, probability and statistics, and patterns, functions, and algebra strands of the Standards of Learning. New content will prepare students for more abstract concepts in algebra and geometry. SOL tested course
Grades Offered 8

Other

Aides

Serving the school by working as an aide can be personally rewarding as well as helpful. With prior approval, a modified schedule can be arranged to assist for one period a day in the main office, guidance office, science labs, special education programs, physical education classes, library, clinic, educational technology labs, or drama and music departments. No credit is given toward meeting promotion requirements.
Grades Offered 8

Performing Arts

Drama and Oral Interpretation

This course introduces the student, through oral reading assignments, to drama and oral interpretation. The student practices fluent oral reading of drama and prose emphasizing expression and meaning. The student prepares and performs skits, monologues, and short plays. Improvisations are an important part of class. Videotaping of presentations allows students to critique their own performances.
Grades Offered 7, 8

Performing Arts 6

This course is an overview of various performing arts topics that can include music literacy skills, singing, instrumental studies, and/or acting. Emphasis is on furthering a student's interest in the fine arts. Topics covered depend on the resources and teacher's area of specialty in each middle school.
Grades Offered 6

Remediation

Mathematics Focus

These courses are designed to provide remediation in the four core areas assessed on the Standards of Learning tests. Students with certain academic need or who fail one or more SOL tests may be assigned to these courses for a specified period of time. Students will receive additional instruction and review of content and concepts in the focus areas needing further development. A variety of instructional strategies will be used to address students' individual remediation needs.
Grades Offered 6

Mathematics Focus

These courses are designed to provide remediation for students with certain academic needs in the four core areas assessed on the Standards of Learning tests. Students who fail one or more SOL tests may be assigned to these courses for a specified period of time. Students will receive additional instruction and review of content and concepts in the focus areas needing further development. A variety of instructional strategies will be used to address students' individual remediation needs.
Grades Offered 7

Mathematics Focus

These courses are designed to provide remediation in the four core areas assessed on the Standards of Learning tests. Students who fail one or more SOL tests may be assigned to these courses for a specified period of time. Students will receive additional instruction and review of content and concepts in the focus areas needing further development. A variety of instructional strategies will be used to address students' individual remediation needs.
Grades Offered 8

Reading/Writing Focus

These courses are designed to provide remediation in the four core areas assessed on the Standards of Learning tests. Students with certain academic need or who fail one or more SOL tests may be assigned to these courses for a specified period of time. Students will receive additional instruction and review of content and concepts in the focus areas needing further development. A variety of instructional strategies will be used to address students' individual remediation needs.
Grades Offered 6

Reading/Writing Focus

These courses are designed to provide remediation for students with certain academic needs in the four core areas assessed on the Standards of Learning tests. Students who fail one or more SOL tests may be assigned to these courses for a specified period of time. Students will receive additional instruction and review of content and concepts in the focus areas needing further development. A variety of instructional strategies will be used to address students' individual remediation needs.
Grades Offered 7

Reading/Writing Focus

These courses are designed to provide remediation in the four core areas assessed on the Standards of Learning tests. Students who fail one or more SOL tests may be assigned to these courses for a specified period of time. Students will receive additional instruction and review of content and concepts in the focus areas needing further development. A variety of instructional strategies will be used to address students' individual remediation needs.
Grades Offered 8

Science Focus

These courses are designed to provide remediation for students with certain academic needs in the four core areas assessed on the Standards of Learning tests. Students who fail one or more SOL tests may be assigned to these courses for a specified period of time. Students will receive additional instruction and review of content and concepts in the focus areas needing further development. A variety of instructional strategies will be used to address students' individual remediation needs.
Grades Offered 7

Science Focus

These courses are designed to provide remediation in the four core areas assessed on the Standards of Learning tests. Students who fail one or more SOL tests may be assigned to these courses for a specified period of time. Students will receive additional instruction and review of content and concepts in the focus areas needing further development. A variety of instructional strategies will be used to address students' individual remediation needs.
Grades Offered 8

Social Studies Focus

These courses are designed to provide remediation for students with certain academic needs in the four core areas assessed on the Standards of Learning tests. Students who fail one or more SOL tests may be assigned to these courses for a specified period of time. Students will receive additional instruction and review of content and concepts in the focus areas needing further development. A variety of instructional strategies will be used to address students' individual remediation needs.
Grades Offered 7

Science

Life Science

Life science examines five major topics: tools of the life scientist; cells; taxonomy; inheritance and change; and ecology/biomes. The use of a microscope is introduced. Critical thinking and problem-solving techniques are stressed to help students see the role of science in their daily lives. Laboratory investigations and hands-on activities are emphasized. If a laboratory investigation includes an animal dissection, an alternative assignment will be provided to students objecting to this activity. A small group or individual inquiry project is required.
Grades Offered 7

Physical Science

This course includes basic concepts in chemistry and physics. Units include force and motion, wave energy, matter (including its structure and interactions), the periodic table, and electricity and magnetism. Laboratory investigations and hands on activities are emphasized. A small group or individual inquiry project is required. SOL tested course (SOL test covers sixth, seventh, eighth grade standards.)
Grades Offered 8

Science

Science in the sixth grade is organized topically: characteristics of matter; force, motion, and energy; interrelationships in earth/space systems; water; and the atmosphere. Through a variety of techniques, including demonstration and discovery, the sixth grade student will understand and apply current scientific principles. The student, through the use of the scientific method, solves problems in everyday life and develops a greater appreciation for science. A small group inquiry project incorporating experimental design skills is required.
Grades Offered 6

Social Studies

Civics and Economics

Civics and Economics will examine the roles citizens play in the political, governmental, and economic systems in the United States. Students will examine the Constitutions of Virginia and the United States, identify the rights, duties, and responsibilities of citizens, and describe the structure and operation of government at the local, state, and national levels. Students will investigate the process by which decisions are made in the American market economy and explain the government's role in it. Personal character traits, such as patriotism, respect for the law, willingness to perform public service, and a sense of civic duty that facilitate thoughtful and effective active participation in the civic life of an increasingly diverse democratic society will be emphasized throughout the course. Emphasis will be placed on the intellectual and practical skills required for responsible citizenship. SOL tested course

Grades Offered 8

United States History 1865–Present

Students will continue to use social studies skills as they examine American history since 1865, from the Reconstruction era to the present. Students will continue to learn fundamental concepts in civics, economics, and geography within the context of United States history. Political, economic, and social challenges facing the nation reunited after civil war will be examined chronologically as students develop an understanding of how the American experience shaped the world's political and economic landscapes. Emphasis will placed on intellectual skills required for responsible citizenship.

Grades Offered 7

United States History to 1865

Students will use social studies skills to explore the early history of the United States and understand ideas and events that strengthened the union. The standards for this course relate to the history of the United States from pre-Columbian times until 1865. Students will continue to learn fundamental concepts in civics, economics, and geography as they study United States history in chronological sequence and learn about change and continuity in our history. They also will study documents and speeches that laid the foundation for American ideals and institutions and will examine the everyday life of people at different times in the country's history through the use of primary and secondary sources. The study of history will emphasize the intellectual skills required for responsible citizenship. Students will practice these skills as they extend their understanding of the essential knowledge defined by all of the standards for history and social science.

Grades Offered 6

World Languages

Exploring World Languages

This course introduces students to world languages through participation in interactive activities using target vocabulary. Students learn through participation in an immersive environment, beginning with listening and reading comprehension and moving to responding to specific questions in the world language. As a result, students will be able to understand simple speech and engage in basic interactions around a variety of topics including families, contemporary life, and culture. This course prepares students for success in the Level I World Language courses, and is designed to support students from a variety of novice proficiency levels, from true beginners to novice – high, using the American Council of Foreign Language Teacher (ACTFL) standards.

Grades Offered 6

Exploring World Languages

This course introduces students to world languages through participation in interactive activities using target vocabulary. Students learn through participation in an immersive environment, beginning with listening and reading comprehension and moving to responding to specific questions in the world language. As a result, students will be able to understand simple speech and engage in basic interactions around a variety of topics including families, contemporary life, and culture. This course prepares students for success in the Level I World Language courses, and is designed to support students from a variety of novice proficiency levels, from true beginners to novice – high, using the American Council of Foreign Language Teacher (ACTFL) standards.
Grades Offered 7

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Grades Offered 8

French I

Students begin their study of French by developing listening, speaking, reading, and writing skills and experiencing the culture of francophone countries through simulated cultural activities and events. Technology will be used to enhance student learning of French through projects and activities. Students who successfully complete this course will earn a high school credit.
Credits 1.0
Grades Offered 8

Spanish I

Students begin to learn the second most spoken language in the United States. Students develop listening, speaking, reading, and writing skills and experience the culture of Hispanic countries through simulated cultural activities and events. Technology will be used to enhance student learning of Spanish through projects and activities. Students who successfully complete this course will earn a high school credit.
Credits 1.0
Grades Offered 7, 8

Spanish II

Spanish II provides students with unique opportunities to experience the Hispanic culture with the use of a language spoken by more than 500 million people in the world. Students continue to develop both oral and written communication skills using authentic materials such as ads, maps, magazines and newspapers. Students communicate in the present, past and future tenses. Technology will be used to enhance student learning of Spanish through projects and activities. Students who successfully complete this course will earn a high school credit.
Credits 1.0
Grades Offered 8
Prerequisites
Spanish I

Spanish for Fluent Speakers I

Fluent speakers of Spanish who have had little previous formal study of the Spanish language will develop the fundamentals of all four language skills: speaking, listening, reading and writing. This level focuses heavily on the interpretive skills of reading and listening. Additionally, students will present information, concepts, and ideas to an audience of listeners and readers on a variety of topics in Spanish. Students will gain knowledge and understanding of the relationship among practices, products, and perspectives of Spanish-speaking cultures. Readings and writing activities will be used to teach literary analysis similar to that of an English course.
Credits 1.0
Grades Offered 7, 8
Prerequisites
Proficiency Testing

Spanish for Fluent Speakers II

Fluent speakers of Spanish who have had some previous formal study of the Spanish language will develop the fundamentals of all four language skills: speaking, listening, reading and writing. This level focuses heavily on the interpersonal skills of language use. Students will present information, concepts, and ideas to an audience of listeners and readers on a variety of topics in Spanish. Students will gain knowledge and understanding of the relationship among practices, products, and perspectives of Spanish-speaking cultures. Readings and writing activities will be used to teach literary analysis similar to that of an English course.
Credits 1.0
Grades Offered 8
Prerequisites
Spanish for Fluent Speakers I

Agricultural Education

Program Description

Agricultural Education includes programs of study designed to prepare students for occupations in horticulture, agricultural business, natural resources management, agricultural machinery and production agriculture. Agricultural Education stresses the development of skills in all aspects of agricultural businesses and industries, including planning, management, safety, finances and leadership. Students learn workplace readiness and technical skills, along with participation in the student organization FFA, and (Supervised Agricultural Experience) as appropriate. A lab fee is required for all courses.

The FFA is the career and technical student organization for all individuals enrolled in the Agriculture Education program. It reinforces the Agriculture curriculum and provides opportunity for competition, travel, leadership and career development.

Work-based Learning

Cooperative Education (Co-op) and Internships are high-quality work-based learning experiences for juniors and seniors that place the student in a workplace environment. This placement allows the student to develop and practice knowledge and skills for a specific career field related to the student's career interests, abilities, and goals. Co-op is a paid work-based learning experience while internships may be paid or unpaid. Co-op and internships are connected to classroom learning and are guided by a formal, written training plan that defines specific academic, technical, and workplace skills to be mastered. Applications may be obtained from a school counselor or a CTE teacher.

On-the-job hours required to earn credit through cooperative education or internship are as follows:
140 hours = .5 credit
280 hours = 1 credit

Job shadowing is a short-term experience available as a part of Career and Technical Education courses through an application process. Juniors and seniors who are currently enrolled in CTE courses or who have completed a coherent sequence of CTE courses are eligible. The application process includes student narrative and teacher recommendation. Students participating in this work-based learning experience are required to complete a reflective exercise.

Credentialing

The High School Industry Credentialing initiative encourages students to work toward a selected industry credential or state license while pursuing a high school diploma. The Virginia Department of Education evaluates on an on-going basis industry credentials against prescribed criteria for graduation requirements for the Standard Diploma (8VAC20-131-50.B) and student-selected verified credit (8VAC20-131-110.C). Credentialing exams are available to any student taking a Career and Technical Education course.

Agriscience Exploration

This course assists seventh grade students in exploring agriculture and the environment. Topics of discussion include animal science, conservation and natural resource management, leadership, and personal development through the FFA, and mechanical skills development.
Grades Offered 7

CTE
Yes

Agriscience Technology

Through classroom instruction and hands-on laboratory activities, students will explore the fields of agriculture, food, and natural resources (AFNR), to include: global agriculture; new and emerging technologies; agricultural mechanics; and careers in agribusiness; animal systems; environmental services; food products and processing; natural resources systems; plant systems; and power, structural, and technical systems. Eighth grade students further their leadership and personal development through the FFA. Students will learn to care for and manage companion animals important to agriculture.
Grades Offered 8

CTE
Yes
Prerequisites
Agriscience Exploration

Introduction to Agriscience

This course introduces agriscience and develops an awareness of animal and plant science, natural resources, mechanical skills, and the food industry. Sixth grade students will participate in activities that will increase their awareness of the world of agriculture.
Grades Offered 6

CTE
Yes

Introduction to Agriscience

This course introduces agriscience and develops an awareness of animal and plant science, natural resources, mechanical skills, and the food industry. Sixth grade students will participate in activities that will increase their awareness of the world of agriculture. This course is a semester option for Intro to Agriscience.
Grades Offered 6

CTE
Yes

Business and Information Technology

Program Description

Students in the Business Education program will develop an international sense of business, acquire competence in the use of complex technologies while exploring their interests, and master essential skills such as effective communications, teamwork, and an appreciation for continuous learning. Students have an opportunity to participate in the Cooperative Office Education Program and FBLA co-curricular activities to develop employability and leadership skills. A lab fee is required for some courses.

Future Business Leaders of America (FBLA) is the career and technical education student organization for all individuals enrolled in business courses. The activities of FBLA are an integral part of the business program and are designed to prepare students for leadership and careers in business through business-related

education and entrepreneurial skill development, community service and partnerships with the professional sector. Students in Medical Systems Administration may participate in HOSA (Future Health Professionals) This organization features leadership activities in addition to opportunities for state and national level competitive events.

Work-based Learning

Cooperative Education (Co-op) and Internships are high-quality work-based learning experiences for juniors and seniors that place the student in a workplace environment. This placement allows the student to develop and practice knowledge and skills for a specific career field related to the student's career interests, abilities, and goals. Co-op is a paid work-based learning experience while internships may be paid or unpaid. Co-op and internships are connected to classroom learning and are guided by a formal, written training plan that defines specific academic, technical, and workplace skills to be mastered. Applications may be obtained from a school counselor or a CTE teacher.

On-the-job hours required to earn credit through cooperative education or internship are as follows:
140 hours = .5 credit
280 hours = 1 credit

Job shadowing is a short-term experience available as a part of Career and Technical Education courses through an application process. Juniors and seniors who are currently enrolled in CTE courses or who have completed a coherent sequence of CTE courses are eligible. The application process includes student narrative and teacher recommendation. Students participating in this work-based learning experience are required to complete a reflective exercise.

Credentialing

The High School Industry Credentialing initiative encourages students to work toward a selected industry credential or state license while pursuing a high school diploma. The Virginia Department of Education evaluates on an on-going basis industry credentials against prescribed criteria for graduation requirements for the Standard Diploma (8VAC20-131-50.B) and student-selected verified credit (8VAC20-131-110.C). Credentialing exams are available to any student taking a Career and Technical Education course.

Career Investigations

This course allows students to explore career options and begin investigating career opportunities. Students assess their roles in society, identify their roles as workers, analyze their personal assets, complete a basic exploration of career clusters, select career pathways or occupations for further study, and create an Academic and Career Plan based on the their academic and career interests. This course also helps students identify and demonstrate the workplace skills that employers desire in their future employees.
Grades Offered 6

CTE
Yes

Computer Solutions

Students are introduced to the world of business using the computer as a problem-solving tool. Emphasis is placed on using basic keyboarding skills to complete a variety of projects incorporating word processing, database, presentation, and spreadsheet software. Basic Internet safety and computer maintenance issues are important components of this course. This is a nine week course.
Grades Offered 6

CTE
Yes

Computer Solutions

Students are introduced to the world of business using the computer as a problem-solving tool. Emphasis is placed on using basic keyboarding skills to complete a variety of projects incorporating word processing, database, presentation, and spreadsheet software. Basic Internet safety and computer maintenance issues are important components of this course. This is a semester course.
Grades Offered 6, 7

CTE
Yes

Exploring Computer Science-IT Fundamentals

This course is an introductory computer science course that explores technical and professional skills required for students to pursue programs leading to professional careers and certifications. This course introduces skills related to programming, web and game design, digital technology, digital applications maintenance/upgrading/troubleshooting, and networking fundamentals. Students also explore ethical issues related to computers and internet technology. Students who successfully complete this course will earn a high school credit.
Credits 1.0
Grades Offered 8

CTE
Yes

Make it Your Business

Students design, establish, and operate a small-group or class business, producing a service or product that meets an identified school or community need. Emphasis is placed on the introduction and application of business terminology, basic entrepreneurship concepts, and fundamental business principles. Basic academic skills (mathematics, science, English, and history/social science) are integrated into this course.
Grades Offered 7, 8

CTE
Yes

Principles of Business and Marketing

Students discover the roles of business and marketing in the free enterprise system and the global economy. Students examine basic financial concepts of banking, insurance, credit, taxation, and investments to provide a strong background for making sound decisions as consumers, wage earners, and citizens. The real-world effects of technology, effective communication, and interpersonal skills is evident throughout the course. This course also supports career development skills and explores career options. Students who successfully complete this course will earn a high school credit.
Credits 1.0
Grades Offered 8

CTE
Yes

Family and Consumer Sciences

Program Description

Family and Consumer Sciences programs facilitate student progress toward a set of unifying goals in the areas of academic achievement, cultural and environmental issues, health and safety, individual and family relations, leadership and workplace ethics, and application of technology. Courses provide training in areas related to early childhood, nutrition, housing and life management. The objective of the program is to develop responsible citizens and leaders in family, community and work settings. Students have an opportunity to participate in co-curricular activities through Family, Career and Community Leaders of America (FCCLA). These activities are an integral part of the program and are designed to enhance the course offerings through leadership development. A lab fee is required for some courses.

Work-based Learning

Cooperative Education (Co-op) and Internships are high-quality work-based learning experiences

for juniors and seniors that place the student in a workplace environment. This placement allows the student to develop and practice knowledge and skills for a specific career field related to the student's career interests, abilities, and goals. Co-op is a paid work-based learning experience while internships may be paid or unpaid. Co-op and internships are connected to classroom learning and are guided by a formal, written training plan that defines specific academic, technical, and workplace skills to be mastered. Applications may be obtained from a school counselor or a CTE teacher.

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280 hours = 1 credit

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Credentialing

The High School Industry Credentialing initiative encourages students to work toward a selected industry credential or state license while pursuing a high school diploma. The Virginia Department of Education evaluates on an on-going basis industry credentials against prescribed criteria for graduation requirements for the Standard Diploma (8VAC20-131-50.B) and student-selected verified credit (8VAC20-131-110.C). Credentialing exams are available to any student taking a Career and Technical Education course.

Family and Consumer Sciences Exploratory I

This course prepares students for the demands of 21st century living. This course provides a foundation for managing individual, family, career, and community roles and responsibilities. Students focus on areas of individual growth, goal setting, strengthening families, and awareness of personal safety and wellness. They also explore saving and spending practices, clothing care, food preparation, positive and caring relationships with others, and careers. Instruction emphasizes science, technology, engineering and mathematics (STEM) concepts, where appropriate.
Grades Offered 6

CTE
Yes

Family and Consumer Sciences Exploratory I

This course prepares students for the demands of 21st century living. This course provides a foundation for managing individual, family, career, and community roles and responsibilities. Students focus on areas of individual growth, goal setting, strengthening families, and awareness of personal safety and wellness. They also explore saving and spending practices, clothing care, food preparation, positive and caring relationships with others, and careers. Instruction emphasizes science, technology, engineering and mathematics (STEM) concepts, where appropriate. This course is a semester.
Grades Offered 6

CTE
Yes

Family and Consumer Sciences Exploratory II

This course emphasizes personal responsibility for the demands of multiple life roles through hands-on, project-based instruction. Students focus on individual development, maintain their personal environments, apply nutrition and wellness practices, manage consumer and family resources, create textile, fashion, and apparel products, and explore careers related to Family and Consumer Sciences such as child care. Instruction in this course emphasizes science, technology, engineering and mathematics (STEM) concepts, where appropriate.
Grades Offered 7

CTE
Yes

Family and Consumer Sciences Exploratory III

This advanced-level course prepares students for their roles in families, careers, and communities through project-based instruction. Students experience in-depth studies of nutrition and wellness, food preparation, relationships, personal environments, textiles, fashion and apparel, consumer resources, child development and care, and leadership service in action through FCCLA. Instruction in this course emphasizes science, technology, engineering and mathematics (STEM) concepts, where appropriate.
Grades Offered 8

CTE
Yes

Gifted

Gifted Academic Program (GAP) Research 1

This semester course offers gifted middle school students the opportunity to delve deeply into a personally meaningful project. By employing advanced research and critical thinking skills, students will independently explore and develop a project that aligns with their passions and interests. This course is designed to challenge and inspire students, providing a differentiated learning experience beyond the regular classroom curriculum. Students must be eligible for gifted academic services in order to be accepted into the class.
Credits 0.5
Grades Offered 6, 7, 8

Health and Medical Sciences

Program Description

Health and Medical Sciences prepare students for careers in disciplines related to medicine and other health occupations programs through therapeutic, diagnostic, rehabilitative, managerial and supportive services.

Because of the continued need for health care workers, Valley Health Systems partnered with local school divisions to implement the Introduction to Health and Medical Sciences course. This course is designed for students considering a career in Health and Medical Science. The Introduction to Health and Medical Sciences course is available for students in grades 10-12 but is recommended for 10th graders so that students have time to take one of the sequential course offerings in Nurse Aide, Pharmacy Technician, Sports Medicine, EMT, or Medical Systems Administration.

Work-based Learning

Health and Medical Science programs have specific work-based learning guidelines

determined by the corresponding regulatory agency or accrediting body. Programs with these requirements include Pharmacy Technician Academy, the EMT Academy, Nurse Aide, and Patient Care Technician. Students must complete the required clinical hours as part of the program in which they are enrolled.

Credentialing

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Health and Medical Sciences Exploratory

Students explore health and medical sciences careers and related clusters, participate in interactive activities, and receive an overview of the healthcare industry. Course content includes the criteria for entering various healthcare careers. Students gain communication, problem solving, and critical thinking skills.
Grades Offered 8

CTE
Yes

Technology Education

Program Description

The Technology Education program assists students in developing an understanding of industry and technology and in discovering and developing individual potential. This program provides students with competencies for occupational readiness that are useful for the future craftsperson, technician, engineer, designer or consumer. It provides a foundation for career preparation at either the secondary or post-secondary level. A lab fee is required for most courses.

The Technology Student Association (TSA) is a co-curricular student-led organization that reinforces the technology curriculum and provides opportunity for competition, travel, leadership and career development.

Work-based Learning

Cooperative Education (Co-op) and Internships are high-quality work-based learning experiences for juniors and seniors that place the student in a workplace environment. This placement allows the student to develop and practice knowledge and skills for a specific career field related to the student's career interests, abilities, and goals. Co-op is a paid work-based learning experience while internships may be paid or unpaid. Co-op and internships are connected to classroom learning and are guided by a formal, written training plan that defines specific academic, technical, and workplace skills to be mastered. Applications may be obtained from a school counselor or a CTE teacher.

On-the-job hours required to earn credit through cooperative education or internship are as follows:
140 hours = .5 credit
280 hours = 1 credit

Job shadowing is a short-term experience available as a part of Career and Technical Education courses through an application process. Juniors and seniors who are currently enrolled in CTE courses or who have completed a coherent sequence of CTE courses are eligible. The application process includes student narrative and teacher recommendation. Students participating in this work-based learning experience are required to complete a reflective exercise.

Credentialing

The High School Industry Credentialing initiative encourages students to work toward a selected industry credential or state license while pursuing a high school diploma. The Virginia Department of Education evaluates on an on-going basis industry credentials against prescribed criteria for

graduation requirements for the Standard Diploma (8VAC20-131-50.B) and student-selected verified credit (8VAC20-131-110.C). Credentialing exams are available to any student taking a Career and Technical Education course.

Introduction to Technology

Students study the resources of all technology, including tools, energy, materials, people, time, information, and capital. This also includes the problem-solving process and various hands-on activities. They explore up to three systems of technology, including medical, agricultural and related biotechnologies, energy and power, information and communication, transportation, manufacturing, and construction. Students relate the impact of technology on society, environment, and culture to future consequences and decisions.
Grades Offered 6

CTE
Yes

Introduction to Technology

Students study the resources of all technology, including tools, energy, materials, people, time, information, and capital. This also includes the problem-solving process and various hands-on activities. They explore up to three systems of technology, including medical, agricultural and related biotechnologies, energy and power, information and communication, transportation, manufacturing, and construction. Students relate the impact of technology on society, environment, and culture to future consequences and decisions. THis course is a semester option for Intro to Technology.
Grades Offered 6

CTE
Yes

Inventions and Innovations

Students make models of significant inventions that have advanced society. After studying these developments, they explore contemporary technological problems facing them, their community, or the world and apply a systematic procedures to invent new products or innovations as solutions.Areas of study include technical drawing, manufacturing, research, invention, and modular technology.
Grades Offered 7

CTE
Yes

Technological Systems

Students combine resources and techniques to create systems, attaining comprehension of how technological systems work. Students will explore, design, analyze, and evaluate technological systems. By simulating systems and assessing their impacts, students gain insight into how to approach the problems and opportunities of a technological world. Students will also explore technology-oriented careers.
Grades Offered 8

CTE
Yes

High School Courses

Agricultural Education

Program Description

Agricultural Education includes programs of study designed to prepare students for occupations in horticulture, agricultural business, natural resources management, agricultural machinery and production agriculture. Agricultural Education stresses the development of skills in all aspects of agricultural businesses and industries, including planning, management, safety, finances and leadership. Students learn workplace readiness and technical skills, along with participation in the student organization FFA, and (Supervised Agricultural Experience) as appropriate. A lab fee is required for all courses.

The FFA is the career and technical student organization for all individuals enrolled in the Agriculture Education program. It reinforces the Agriculture curriculum and provides opportunity for competition, travel, leadership and career development.

Work-based Learning

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Credentialing

The High School Industry Credentialing initiative encourages students to work toward a selected industry credential or state license while pursuing a high school diploma. The Virginia Department of Education evaluates on an on-going basis industry credentials against prescribed criteria for graduation requirements for the Standard Diploma (8VAC20-131-50.B) and student-selected verified credit (8VAC20-131-110.C). Credentialing exams are available to any student taking a Career and Technical Education course.

Agricultural Business Operations

This course emphasizes agricultural occupations, business procedures, merchandising, marketing, agricultural business management, and emerging or niche markets. Students will learn agricultural product knowledge, agricultural service industry knowledge, and leadership development. See Guidelines for Placement of Students in Honors/ AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 12

CTE
Yes
Prerequisites
Completion of one Agriculture course

Agricultural Business Operations (Co-op/Internship)

This course emphasizes agricultural occupations, business procedures, merchandising, marketing, agricultural business management, and emerging or niche markets. Students will learn agricultural product knowledge, agricultural service industry knowledge, and leadership development. See Guidelines for Placement of Students in Honors/ AP/Dual Enrolled Classes.
Credits 2.0
Grades Offered 12

CTE
Yes
Prerequisites
Completion of one Agriculture course

Agricultural Structural Systems

This advanced course will allow students the opportunity to develop and apply agricultural mechanical skills in the area of carpentry, metal fabrication, electricity, plumbing, concrete and masonry, leveling and land management, and project design and planning. Students will be engaged in practical learning experiences. Employability traits and leadership skills will be emphasized.
Credits 1.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Any previous Agriculture course

Agricultural Structural Systems (Co-op/Internship)

This advanced course will allow students the opportunity to develop and apply agricultural mechanical skills in the area of carpentry, metal fabrication, electricity, plumbing, concrete and masonry, leveling and land management, and project design and planning. Students will be engaged in practical learning experiences. Employability traits and leadership skills will be emphasized.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Any previous Agriculture course

Applied Agricultural Concepts

Students gain positive experiences through fundamental agricultural competencies needed for rural or urban living. Areas of instruction include food production, handling, and preparation; introduction to the livestock and poultry industry; soil, soil fertility, and cultural practices; mechanical applications; plant systems and disease/pest management for shrubs, lawns, pastures, gardens, and fruit trees. The course emphasizes leadership development and participation in FFA activities. Supervised Agricultural Experiences will allow for enhanced learning and growth opportunities for students. Electrical, plumbing, carpentry, and metalworking lab competencies are incorporated throughout the course.
Credits 1.0
Grades Offered 9, 10, 11, 12

CTE
Yes
Prerequisites
Any previous Agriculture course

Applied Agricultural Concepts (Co-op/Internship)

Students gain positive experiences through fundamental agricultural competencies needed for rural or urban living. Areas of instruction include food production, handling, and preparation; introduction to the livestock and poultry industry; soil, soil fertility, and cultural practices; mechanical applications; plant systems and disease/pest management for shrubs, lawns, pastures, gardens, and fruit trees. The course emphasizes leadership development and participation in FFA activities. Supervised Agricultural Experiences will allow for enhanced learning and growth opportunities for students. Electrical, plumbing, carpentry, and metalworking lab competencies are incorporated throughout the course.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Any previous Agriculture course

Fisheries and Wildlife Management

Students learn how to identify and manage various animal species including: fish, birds, mammals, reptiles and amphibians. The course focuses on understanding the positive and negative impact humans have on the environment. The course provides instruction on managing water quality and operating an aquaculture facility. Students will explore related career pathways.
Credits 1.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Any other Agriculture course

Fisheries and Wildlife Management (Co-op/Internship)

Students learn how to identify and manage various animal species including: fish, birds, mammals, reptiles and amphibians. The course focuses on understanding the positive and negative impact humans have on the environment. The course provides instruction on managing water quality and operating an aquaculture facility. Students will explore related career pathways.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Any other Agriculture course

Floral Design

Course content covers career opportunities, floral design foundations, design applications, and the marketing of floral products. Specific design styles to be examined include mass, mass-line, line, vase, wedding, balloon, holiday, and personal-adornment arrangements. Students develop skills in conditioning fresh cut flowers and identifying commonly used flowers, tools, and floriculture equipment. The course also emphasizes leadership activities and opportunities to participate in FFA events.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes

Floral Design (Co-op/Internship)

Course content covers career opportunities, floral design foundations, design applications, and the marketing of floral products. Specific design styles to be examined include mass, mass-line, line, vase, wedding, balloon, holiday, and personal-adornment arrangements. Students develop skills in conditioning fresh cut flowers and identifying commonly used flowers, tools, and floriculture equipment. The course also emphasizes leadership activities and opportunities to participate in FFA events.
Credits 2.0
Grades Offered 11, 12

CTE
Yes

Greenhouse Plant Production

Students are taught the operating procedures for a greenhouse. Units of instruction include developing plant production facilities, science application in plant production, and identification of plants. Business management, leadership development, and marketing skills are emphasized to prepare students for careers in the greenhouse plant production and management industry. Greenhouse Plant Production and Landscaping may be offered in alternate years.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Any other Agriculture course

Greenhouse Plant Production (Co-op/Internship)

Students are taught the operating procedures for a greenhouse. Units of instruction include developing plant production facilities, science application in plant production, and identification of plants. Business management, leadership development, and marketing skills are emphasized to prepare students for careers in the greenhouse plant production and management industry. Greenhouse Plant Production and Landscaping may be offered in alternate years.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Any other Agriculture course

Introduction to Animal Systems

Students develop competencies in each of the major areas of the Animal Systems career pathway including animal nutrition, reproduction, breeding, care, and management. Students learn agricultural mechanics applicable to animal systems. As with all agriculture courses, students will be exposed to principles of leadership and opportunities within FFA along with Supervised Agricultural Experience.
Credits 1.0
Grades Offered 9, 10

CTE
Yes

Introduction to Natural Resources

Students are introduced to the variety of topics involved with the conservation of our natural resources. Studies include air, soil, water, forest and energy conservation; wildlife identification; and management practices. Introduction to Natural Resources and Forestry, Wildlife Management may be offered in alternate years.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Any previous Agriculture course

Introduction to Natural Resources (Co-op/Internship)

Students are introduced to the variety of topics involved with the conservation of our natural resources. Studies include air, soil, water, forest and energy conservation; wildlife identification; and management practices. Introduction to Natural Resources and Forestry, Wildlife Management may be offered in alternate years.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Any previous Agriculture course

Introduction to Plant Systems

Students develop competencies in each of the major areas of the Plant Systems career pathway including botany, plant propagation, and plant care and selection. Instructional content also includes an introduction to the various divisions of the plant system industry. Students learn agricultural mechanics applicable to plant systems.
Credits 1.0
Grades Offered 9, 10

CTE
Yes

Landscaping

Students are involved in all aspects of landscaping including design, installation and maintenance. The class includes hands-on activities in all three phases of landscaping which will be valuable for students seeking employment in the landscaping industry. Students learn basic horticulture business management and entrepreneurship skills. Greenhouse Plant Production and Landscaping are offered in alternate years.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Any other Agriculture course

Landscaping (Co-op/Internship)

Students are involved in all aspects of landscaping including design, installation and maintenance. The class includes hands-on activities in all three phases of landscaping which will be valuable for students seeking employment in the landscaping industry. Students learn basic horticulture business management and entrepreneurship skills. Greenhouse Plant Production and Landscaping are offered in alternate years.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Any other Agriculture course

Large Animal Science (Livestock Production)

Students learn how to care for and manage large animals and their facilities. The course focuses on animal health, nutrition, reproduction and evaluation. Course content also includes instruction in the tools, equipment, and facilities for animal care. This course is designed for students who have an interest in large animal production and veterinary science. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Introduction to Animal Systems or Small Animal Science

Large Animal Science (Livestock Production) (Co-op/Internship)

Students learn how to care for and manage large animals and their facilities. The course focuses on animal health, nutrition, reproduction and evaluation. Course content also includes instruction in the tools, equipment, and facilities for animal care. This course is designed for students who have an interest in large animal production and veterinary science. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Introduction to Animal Systems or Small Animal Science

Metal Fabrication and Emerging Technologies

Students learn about a variety of metal fabrication and welding practices in the metal construction industry. Students practice welding procedures in Shielded Metal Arc Welding (SMAW), Metal Inert Gas (MIG), Tungsten Inert Gas (TIG) and OxyAcetylene (OAW). Precision layout and cutting operations also will be performed with power equipment, oxyacetylene cutting and plasma arc. Students will be introduced to precision agricultural management, including (but not limited to) GPS, remote sensing and laser technology. The application of metal fabrication techniques workplace readiness skills and leadership will be emphasized. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Any previous Agriculture course

Metal Fabrication and Emerging Technologies (Co-op/Internship)

Students learn about a variety of metal fabrication and welding practices in the metal construction industry. Students practice welding procedures in Shielded Metal Arc Welding (SMAW), Metal Inert Gas (MIG), Tungsten Inert Gas (TIG) and OxyAcetylene (OAW). Precision layout and cutting operations also will be performed with power equipment, oxyacetylene cutting and plasma arc. Students will be introduced to precision agricultural management, including (but not limited to) GPS, remote sensing and laser technology. The application of metal fabrication techniques workplace readiness skills and leadership will be emphasized. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Any previous Agriculture course

Small Animal Science

Students learn how to care for and manage small animals. The course focuses on animal health, nutrition, reproduction, evaluation and training. Course content also includes instruction in the tools, equipment and facilities for small animal care and provides activities to foster leadership development. This course is designed for students who have an interest in small animal science and veterinary science. Live animal handling may occur. FFA, SAE, or related student organizational activities are encouraged.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Any other Agriculture course

Small Animal Science (Co-op/ Internship)

Students learn how to care for and manage small animals. The course focuses on animal health, nutrition, reproduction, evaluation and training. Course content also includes instruction in the tools, equipment and facilities for small animal care and provides activities to foster leadership development. This course is designed for students who have an interest in small animal science and veterinary science. Live animal handling may occur. FFA, SAE, or related student organizational activities are encouraged.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Any other Agriculture course

Small Engine Repair

This course offers an intensive study of the operation, maintenance, and repair of small gasoline engines. Instructional topics include principles of operation of internal combustion engines, repair and service procedures, and disassembly, overhaul, and reassembly. Instruction may also include the operation of two-cycle and four-cycle engines commonly found on lawn mowers, garden tractors, snow blowers, rotary tillers, chainsaws, and other equipment. Additionally, this course incorporates classroom and laboratory activities to emphasize leadership through opportunities in FFA and supervised agricultural experiences (SAEs).
Credits 0.5
Grades Offered 10, 11, 12

CTE
Yes

Veterinary Science

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, safety, 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.
Credits 1.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Any other Agriculture course

Veterinary Science (Co-op/ Internship)

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, safety, 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.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Any other Agriculture course

Business and Information Technology

Program Description

Students in the Business Education program will develop an international sense of business, acquire competence in the use of complex technologies while exploring their interests, and master essential skills such as effective communications, teamwork, and an appreciation for continuous learning. Students have an opportunity to participate in the Cooperative Office Education Program and FBLA co-curricular activities to develop employability and leadership skills. A lab fee is required for some courses.

Future Business Leaders of America (FBLA) is the career and technical education student organization for all individuals enrolled in business courses. The activities of FBLA are an integral part of the business program and are designed to prepare students for leadership and careers in business through business-related education and entrepreneurial skill development, community service and partnerships with the professional sector. Students in Medical Systems Administration may participate in HOSA (Future Health Professionals) This organization features leadership activities in addition to opportunities for state and national level competitive events.

Work-based Learning

Cooperative Education (Co-op) and Internships are high-quality work-based learning experiences for juniors and seniors that place the student in a workplace environment. This placement allows the student to develop and practice knowledge and skills for a specific career field related to the student's career interests, abilities, and goals. Co-op is a paid work-based learning experience while internships may be paid or unpaid. Co-op and internships are connected to classroom learning and are guided by a formal, written training plan that defines specific academic, technical, and workplace skills to be mastered. Applications may be obtained from a school counselor or a CTE teacher.

On-the-job hours required to earn credit through cooperative education or internship are as follows:
140 hours = .5 credit
280 hours = 1 credit

Job shadowing is a short-term experience available as a part of Career and Technical Education courses through an application process. Juniors and seniors who are currently enrolled in CTE courses or who have completed a coherent sequence of CTE courses are eligible. The application process includes student narrative and teacher recommendation. Students participating in this work-based learning experience are required to complete a reflective exercise.

Credentialing

The High School Industry Credentialing initiative encourages students to work toward a selected industry credential or state license while pursuing a high school diploma. The Virginia Department of Education evaluates on an on-going basis industry credentials against prescribed criteria for graduation requirements for the Standard Diploma (8VAC20-131-50.B) and student-selected

verified credit (8VAC20-131-110.C). Credentialing exams are available to any student taking a Career and Technical Education course.

Accounting

Students acquire the basic principles, concepts and practices of the accounting cycle. Changes.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Teacher Recommendation and any other full-year BIT course

Accounting (Co-op/Internship)

Students acquire the basic principles, concepts and practices of the accounting cycle. Students learn fundamental accounting procedures using a manual and an electronic system.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Teacher Recommendation and any other full-year BIT course

Advanced Accounting

Students gain an in-depth knowledge of accounting procedures and techniques utilized in solving business problems and making financial solutions. Students use the calculator, computer and accounting software with emphasis on electronic spreadsheets to analyze and interpret business applications.
Credits 1.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Accounting

Advanced Accounting (Co-op/ Internship)

Students gain an in-depth knowledge of accounting procedures and techniques utilized in solving business problems and making financial solutions. Students use the calculator, computer and accounting software with emphasis on electronic spreadsheets to analyze and interpret business applications.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Accounting

Advanced Computer Information Systems

Students apply problem-solving skills to practical situations through advanced integrated software applications. Mastery of advanced features and functions of word processing, spreadsheet, database and presentations stressed. Students perform desktop publishing functions. Students learn limited programming skills using Visual Basic and the basics of web page design. Using advanced features of Microsoft Office, students are equipped to synthesize information to design and communicate real-world business scenarios. Students gain the knowledge and skills necessary for passing expert-level industry certifications.Student leadership skills may be enhanced by participation in school-based or virtual enterprises, job shadowing, internships, cooperative education, and/or the Future Business Leaders of America (FBLA). See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
CIS I

Advanced Computer Information Systems (Co-op/ Internship)

Students apply problem-solving skills to practical situations through advanced integrated software applications. Mastery of advanced features and functions of word processing, spreadsheet, database and presentations stressed. Students perform desktop publishing functions. Students learn limited programming skills using Visual Basic and the basics of web page design. Using advanced features of Microsoft Office, students are equipped to synthesize information to design and communicate real-world business scenarios. Students gain the knowledge and skills necessary for passing expert-level industry certifications.Student leadership skills may be enhanced by participation in school-based or virtual enterprises, job shadowing, internships, cooperative education, and/or the Future Business Leaders of America (FBLA). See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
CIS I

Advanced Design, Multimedia and Web Technologies

Using various applications, students will develop and incorporate multimedia elements into Websites, video games and animations. Typical course topics are advanced HTML 5 & CSS, Adobe Dreamweaver, Gamemaker Studio PHP Web Programming and Scratch. This course will continue basic computer science fundamentals. Students can also participate in student organization activities and gain knowledge needed for various Industry Certification tests. See Guidelines for Placement of Students in Honors/ AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Design, Multimedia and Web Technologies

Advanced Design, Multimedia and Web Technologies (Co-op/ Internship)

Using various applications, students will develop and incorporate multimedia elements into Websites, video games and animations. Typical course topics are advanced HTML 5 & CSS, Adobe Dreamweaver, Gamemaker Studio PHP Web Programming and Scratch. This course will continue basic computer science fundamentals. Students can also participate in student organization activities and gain knowledge needed for various Industry Certification tests. See Guidelines for Placement of Students in Honors/ AP/Dual Enrolled Classes.
Credits 2.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Design, Multimedia and Web Technologies

Business Management

Students study basic management concepts and leadership styles as they explore business ownership, planning, operations, marketing, finance, economics, communications, the global marketplace, and human relations. Quality concepts, project management, problem solving, and ethical decision making are an integral part of the course. Student leadership skills may be enhanced by participation in school-based or virtual enterprises, job shadowing, internships, cooperative education, and/or the Future Business Leaders of America (FBLA). See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Teacher Recommendation and any other full-year BIT course

Business Management (Co-op/ Internship)

Students study basic management concepts and leadership styles as they explore business ownership, planning, operations, marketing, finance, economics, communications, the global marketplace, and human relations. Quality concepts, project management, problem solving, and ethical decision making are an integral part of the course. Student leadership skills may be enhanced by participation in school-based or virtual enterprises, job shadowing, internships, cooperative education, and/or the Future Business Leaders of America (FBLA). See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Teacher Recommendation and any other full-year BIT course

Computer Information Systems

Students are introduced to a Windows environment through the use of Microsoft®, which includes word processing, spreadsheets, databases and presentations. Students apply problem-solving skills to complete integrated activities on the computer. Learning to communicate effectively using real-world business scenarios is emphasized. Students gain knowledge and skills necessary for passing various industry certification exams. Student leadership skills may be enhanced by participation in school-based or virtual enterprises, job shadowing, internships, cooperative education, and/or the Future Business Leaders of America (FBLA). See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 9, 10, 11, 12

CTE
Yes
Prerequisites
Teacher Recommendation and any other full-year BIT course

Computer Information Systems (Co-op/Internship)

Students are introduced to a Windows environment through the use of Microsoft®, which includes word processing, spreadsheets, databases and presentations. Students apply problem-solving skills to complete integrated activities on the computer. Learning to communicate effectively using real-world business scenarios is emphasized. Students gain knowledge and skills necessary for passing various industry certification exams. Student leadership skills may be enhanced by participation in school-based or virtual enterprises, job shadowing, internships, cooperative education, and/or the Future Business Leaders of America (FBLA). See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Teacher Recommendation and any other full-year BIT course

Cybersecurity Fundamentals

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.
Credits 1.0
Grades Offered 9, 10, 11, 12

CTE
Yes

Cybersecurity Fundamentals (Co-op/Internship)

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.
Credits 2.0
Grades Offered 11, 12

CTE
Yes

Cybersecurity Network Systems

This advanced-level course prepares students for postsecondary education and careers in the rapidly growing field of cybersecurity. Students gain competitive skills required to administer, analyze, and secure applications, networks, and devices. Upon successful completion of this course, students may qualify for the CompTIA Security+ certification exam. Students with a Security+ credential are well-equipped to further develop their skills toward a CompTIA Cybersecurity Analyst (CSA+) credential
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Cybersecurity Systems Technology II

Cybersecurity Network Systems (Co-op/Internship)

This advanced-level course prepares students for postsecondary education and careers in the rapidly growing field of cybersecurity. Students gain competitive skills required to administer, analyze, and secure applications, networks, and devices. Upon successful completion of this course, students may qualify for the CompTIA Security+ certification exam. Students with a Security+ credential are well-equipped to further develop their skills toward a CompTIA Cybersecurity Analyst (CSA+) credential
Credits 3.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Cybersecurity Systems Technology II

Cybersecurity Systems Technology I

Students enter the world of computer technology and gain practical experience in assembling a computer system. Students will install, configure, and secure various operating systems. Students will troubleshoot computers and peripherals and use system tools and diagnostic software. They develop skills in computer networking and resource sharing. In addition, students explore the relationships between internal and external computer components. Upon successful completion of the course, students may qualify to take the CompTIA A+ certification exam. This course is taught at Dowell J. Howard Center.
Credits 2.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Cybersecurity Fundamentals

Cybersecurity Systems Technology I (Co-op/Internship)

Students enter the world of computer technology and gain practical experience in assembling a computer system. Students will install, configure, and secure various operating systems. Students will troubleshoot computers and peripherals and use system tools and diagnostic software. They develop skills in computer networking and resource sharing. In addition, students explore the relationships between internal and external computer components. Upon successful completion of the course, students may qualify to take the CompTIA A+ certification exam. This course is taught at Dowell J. Howard Center.
Credits 3.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Cybersecurity Fundamentals

Cybersecurity Systems Technology II

This advanced course provides students with training in procedures for optimizing and troubleshooting concepts for computer systems, subsystems, and networks. Students study theory and application of local and wide area networking including design, implementation, and maintenance of a network domain. Students also install, configure and maintain physical and virtual networking applications. This course prepares students to take the CompTIA Network+ certification exam. This course is taught at Dowell J. Howard Center.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Cybersecurity Systems Technology I

Cybersecurity Systems Technology II (Co-op/Internship)

This advanced course provides students with training in procedures for optimizing and troubleshooting concepts for computer systems, subsystems, and networks. Students study theory and application of local and wide area networking including design, implementation, and maintenance of a network domain. Students also install, configure and maintain physical and virtual networking applications. This course prepares students to take the CompTIA Network+ certification exam. This course is taught at Dowell J. Howard Center.
Credits 3.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Cybersecurity Systems Technology I

Design, Multimedia and Web Technologies

Using various applications, students will develop and incorporate multimedia elements into Websites, video games and animations. Typical course topics are HTML 5 & CSS, Adobe Photoshop, Gamemaker Studio and Scratch. This course is a good introduction to computer science fundamentals. Students can also participate in student organization activities and gain knowledge needed for various industry Certification tests. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 9, 10, 11, 12

CTE
Yes
Prerequisites
Teacher Recommendation and any other full-year BIT course

Design, Multimedia and Web Technologies (Co-op/Internship)

Using various applications, students will develop and incorporate multimedia elements into Websites, video games and animations. Typical course topics are HTML 5 & CSS, Adobe Photoshop, Gamemaker Studio and Scratch. This course is a good introduction to computer science fundamentals. Students can also participate in student organization activities and gain knowledge needed for various industry Certification tests. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Teacher Recommendation and any other full-year BIT course

Economics and Personal Finance

Students learn how to navigate the financial decisions they must face and to make informed decisions related to career exploration, budgeting, banking, credit, insurance, spending, taxes, saving, investing, buying/leasing a vehicle, living independently, and inheritance. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship and career success. Instruction in economics and personal finance prepares students to function effectively as consumers, savers, investors, entrepreneurs, and active citizens. Students learn how economies and markets operate and how the United States' economy is interconnected with the global economy. On a personal level, students learn that their own human capital (knowledge and skills) is their most valuable resource. This course is required for graduation.
Credits 1.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
One other CTE course

Economics and Personal Finance (Co-op/Internship)

Students learn how to navigate the financial decisions they must face and to make informed decisions related to career exploration, budgeting, banking, credit, insurance, spending, taxes, saving, investing, buying/leasing a vehicle, living independently, and inheritance. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship and career success. Instruction in economics and personal finance prepares students to function effectively as consumers, savers, investors, entrepreneurs, and active citizens. Students learn how economies and markets operate and how the United States' economy is interconnected with the global economy. On a personal level, students learn that their own human capital (knowledge and skills) is their most valuable resource. This course is required for graduation.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
One other CTE course

Medical Administration

Students wishing to gain employment in healthcare may take this course to learn how to function effectively in a healthcare environment. Along with medical terminology and basic human anatomy and physiology, units of instruction will include customer service activities, managing office activities, legal and medical/business ethics and employability skills. Medical practice simulation software will be used to introduce computerized account management activities. Students will be exposed to real-world situations during the year from representatives from the business community and through field trips. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Teacher Recommendation and any other full-year BIT course

Medical Administration (Co-op/Internship)

Students wishing to gain employment in healthcare may take this course to learn how to function effectively in a healthcare environment. Along with medical terminology and basic human anatomy and physiology, units of instruction will include customer service activities, managing office activities, legal and medical/business ethics and employability skills. Medical practice simulation software will be used to introduce computerized account management activities. Students will be exposed to real-world situations during the year from representatives from the business community and through field trips. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Teacher Recommendation and any other full-year BIT course

Programming

Students in the Programming course explore programming concepts, use algorithmic procedures, implement programming procedures with one or more standard languages, and master programming fundamentals. Coding is used throughout the course. Graphical user interfaces may be used as students design and develop interactive multimedia applications, including game programs. In addition, students employ hypertext markup language (HTML) or JavaScript to create web pages. Students develop their employability skills through a variety of activities. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Teacher approved demonstration and documentation of touch keyboarding skills

Programming (Co-op/ Internship)

Students in the Programming course explore programming concepts, use algorithmic procedures, implement programming procedures with one or more standard languages, and master programming fundamentals. Coding is used throughout the course. Graphical user interfaces may be used as students design and develop interactive multimedia applications, including game programs. In addition, students employ hypertext markup language (HTML) or JavaScript to create web pages. Students develop their employability skills through a variety of activities. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Teacher approved demonstration and documentation of touch keyboarding skills

Career Connections

Program Description

Career Connections is a program area designed to help students prepare for careers and continuing education in a challenging and rapidly changing workplace. These courses provide connecting links for students in pursuit of career development and related career information resources. Students explore pathways, program models, or processes that point the way to career goals.

Work-based Learning

Cooperative Education (Co-op) and Internships are high-quality work-based learning experiences

for juniors and seniors that place the student in a workplace environment. This placement allows the student to develop and practice knowledge and skills for a specific career field related to the student's career interests, abilities, and goals. Co-op is a paid work-based learning experience while internships may be paid or unpaid. Co-op and internships are connected to classroom learning and are guided by a formal, written training plan that defines specific academic, technical, and workplace skills to be mastered. Applications may be obtained from a school counselor or a CTE teacher.

On-the-job hours required to earn credit through cooperative education or internship are as follows:
140 hours = .5 credit
280 hours = 1 credit

Job shadowing is a short-term experience available as a part of Career and Technical Education courses through an application process. Juniors and seniors who are currently enrolled in CTE courses or who have completed a coherent sequence of CTE courses are eligible. The application process includes student narrative and teacher recommendation. Students participating in this work-based learning experience are required to complete a reflective exercise.

Credentialing

The High School Industry Credentialing initiative encourages students to work toward a selected industry credential or state license while pursuing a high school diploma. The Virginia Department of Education evaluates on an on-going basis industry credentials against prescribed criteria for graduation requirements for the Standard Diploma (8VAC20-131-50.B) and student-selected verified credit (8VAC20-131-110.C). Credentialing exams are available to any student taking a Career and Technical Education course.

Career Strategies

This course consists of an in-depth study of career clusters through a variety of investigative activities. Students observe, analyze, and report on the demand for workers, worker qualifications, organizational structures, quality control measures, selected policies and regulations, ethical issues, and rewards of work. Students analyze career assessment results, compare various educational options, and develop or revise a plan related to their academic and career-related goals.
Credits 0.5
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Teacher or counselor approval

Career Strategies

Career Strategies consists of an in-depth study of career clusters through a variety of investigative activities. Students observe, analyze, and report on the demand for workers, worker qualifications, organizational structures, quality control measures, selected policies and regulations, ethical issues, and rewards of work. Students analyze career assessment results, compare various educational options, and develop or revise a plan related to their academic and career-related goals. The year-long option has embedded work-based learning experiences.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Teacher or counselor approval

Education for Employment I

The EFE program is open to all students who require individualized support and assistance in order to acquire employability skills. The primary purpose of this course is to develop skills needed to find job openings, develop pre-employment skills, demonstrate job interview skills, maintain and use personal pay records, explain banking services, explore career opportunities, and develop attitudes that enhance a student's ability to become employed and/or capable of seeking further education and training. This course is a prerequisite for the EFE co-op program.
Credits 1.0
Grades Offered 9, 10

CTE
Yes
Prerequisites
Teacher or counselor approval

Education for Employment II

This course prepares students for competitive employment through simulated work and job coaching activities in the classroom and supervised work experiences that may be school-based or community-based. Emphasis is placed on continuous assessment and improvement of individual employability skills.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
EFEI, teacher or counselor approval

Education for Employment II (Co-op/Internship)

This course prepares students for competitive employment through simulated work and job coaching activities in the classroom and supervised work experiences that may be school-based or community-based. Emphasis is placed on continuous assessment and improvement of individual employability skills.
Credits 2.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
EFE I, teacher or counselor approval

Entrepreneurship Education

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 entrepreneurial venture, using design thinking and business model development. Students will learn about financial statements, marketing principles, sales and customer service, and basic economic principles for successful operation.
Credits 1.0
Grades Offered 9, 10, 11, 12

CTE
Yes

Entrepreneurship Education (Co-op/Internship)

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 entrepreneurial venture, using design thinking and business model development. Students will learn about financial statements, marketing principles, sales and customer service, and basic economic principles for successful operation.
Credits 2.0
Grades Offered 11, 12

CTE
Yes

English

Standard Diploma	Credits	Advanced Studies Diploma	Credits
English	4	**English**	4
English grades 9-12 must be taken for credit in order to graduate. In addition, students must complete and pass the Virginia Standards of Learning assessments for Reading and Writing. Typically, these assessments occur in grade 11. Students have the option of general, honors, AP, and dual enrolled courses depending on grade level.		English grades 9-12 must be taken for credit in order to graduate. In addition, students must complete and pass the Virginia Standards of Learning assessments for Reading and Writing. Typically, these assessments occur in grade 11. Students have the option of general, honors, AP, and dual enrolled courses depending on grade level.	

The English course offerings provide a program to develop skills in listening, speaking, reading, writing and thinking. These skills can best be developed through an integrated language arts approach, a commitment to recognizing the worth of each student and the accommodation of individual instructional needs.

All courses include study appropriate for the grade level in the following four related strands: communication/multimodal literacies, reading/literature, writing and research.

9th and 10th Grade English: Students will read and critique literary works from a variety of eras and cultures.

11th and 12th Grade English: Students will study American literature, both classic and contemporary, at the 11th grade level. British literature and literature of other cultures will be studied at the 12th grade level.

Students will be tested on the English Standards of Learning for Grades 9–11 during the 11th grade. Students who fail SOL reading or writing tests in the 11th grade should attend an SOL English remediation class during the summer. Students may be retested during the summer to earn verified units of credit to meet graduation requirements.

The English department offers several options for each required course. Students are encouraged to select the option which best meets their educational goals and individual needs. English 9 is the prerequisite for English 10, and English 10 is the prerequisite for English 11.

AP English 11

The AP course in English Language and Composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines and rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes. Both the writing and the reading make students aware of the interactions among a writer's purposes, audience expectations and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing. The course accelerates the curriculum to prepare students for the rigor of college level academics at the 11th grade level and meets both the requirements for the state Standards of Learning and the requirements for the AP Language and Composition course. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Prerequisites
English 10

AP English 12

This course accelerates the curriculum to prepare students for the rigor of college level academics at the 12th grade level and for the Advanced Placement Literature and Composition Test. This in-depth course is recommended for students who are able to study deeply and broadly. Students should be confident that they can and will do the quantity and quality of work required. Students need to be self-motivated and independent learners. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Prerequisites
AP English 11

English

These one credit courses develop skills needed to communicate effectively through a study of the English language that includes the use of standard English and vocabulary. These courses prepare students for college, career, and work place readiness. Students become familiar with exemplary authors and literary works through a sustained and structured study of literature.
Credits 1.0

English

These one credit courses develop skills needed to communicate effectively through a study of the English language that includes the use of standard English and vocabulary. These courses prepare students for college, career, and work place readiness. Students become familiar with exemplary authors and literary works through a sustained and structured study of literature.
Credits 1.0
Prerequisites
English 9

English

These one credit courses develop skills needed to communicate effectively through a study of the English language that includes the use of standard English and vocabulary. These courses prepare students for college, career, and work place readiness. Students become familiar with exemplary authors and literary works through a sustained and structured study of literature.
Credits 1.0
Prerequisites
English 10

English

These one credit courses develop skills needed to communicate effectively through a study of the English language that includes the use of standard English and vocabulary. These courses prepare students for college, career, and work place readiness. Students become familiar with exemplary authors and literary works through a sustained and structured study of literature.
Credits 1.0
Prerequisites
English 11

Honors English

These courses accelerate the curriculum to prepare students for the rigor of college level academics in the 11th and 12th grades and for the Advanced Placement Test. These in-depth courses are recommended for students who are able to study deeply and broadly. Students should be confident that they can and will do the quantity and quality of work required. Students need to be self-motivated and independent learners. See Guidelines for Placement of Students in Honors/ AP/Dual Enrolled Classes.
Credits 1.0

Honors English

These courses accelerate the curriculum to prepare students for the rigor of college level academics in the 11th and 12th grades and for the Advanced Placement Test. These in-depth courses are recommended for students who are able to study deeply and broadly. Students should be confident that they can and will do the quantity and quality of work required. Students need to be self-motivated and independent learners. See Guidelines for Placement of Students in Honors/ AP/Dual Enrolled Classes.
Credits 1.0
Prerequisites
English 9

English Electives

The English Department offers the following elective courses in grades 10–12. Electives may vary from school to school. Please check with your guidance department to see if the elective is available. Enrollment in an English elective cannot substitute for a required English course. A prerequisite is required only if the course is part of a sequence. An example would be - Creative Writing I and II must be taken before Creative Writing III.

Creative Writing III

Students in Creative Writing III will study writing for publication, complete an intensive study of the business of writing, develop the pieces for a professional writing portfolio, and continue to grow as writers by attempting new methods and genres of writing. These students will also offer their expertise to younger writers and develop the communication skills vital to collaborating on a writing project. Students will construct a professional writing portfolio for admission to college writing programs as well as for obtaining employment. In addition, students will study the writing trade, focusing primarily on the different venues to become a published writer. Students may choose to take this class as Creative Writing I and II through dual enrollment at Laurel Ridge Community College. This course will not transfer to a four year university as an English class; however, it may be used as an elective. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes. Students will need to have taken Laurel Ridge CC ENG 112 prior to enrollment to take the course for dual enrollment.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Creative Writing I and II or Laurel Ridge CC ENG112

Creative Writing I and II

These courses develop the creative writing skills of students who are highly motivated and have the interest, desire and aptitude for writing. First-year students experiment with a variety of genres (short story, poetry and nonfiction) and learn the principles of magazine production. Second-year students develop expertise with a genre of particular interest to them and serve as editors in the production of the school's literary magazine.
Credits 1.0
Grades Offered 10, 11, 12

Creative Writing I and II

These courses develop the creative writing skills of students who are highly motivated and have the interest, desire and aptitude for writing. First-year students experiment with a variety of genres (short story, poetry and nonfiction) and learn the principles of magazine production. Second-year students develop expertise with a genre of particular interest to them and serve as editors in the production of the school's literary magazine.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Creative Writing I

Debate/Public Speaking I

These courses are for students who are interested in interscholastic speech and debate competition. The courses meet after regular school hours twice each week, and students are required to compete in an average of one tournament per month. First-year students learn the basic skills required for the events they have chosen. Second-year students advance their skills in their chosen events or learn new events. Second-year students also are expected to assist in the training of novice competitors. All students are expected to learn to set realistic goals for their performance and to work independently to reach those goals.
Credits 1.0
Grades Offered 10, 11, 12

Debate/Public Speaking II

These courses are for students who are interested in interscholastic speech and debate competition. The courses meet after regular school hours twice each week, and students are required to compete in an average of one tournament per month. First-year students learn the basic skills required for the events they have chosen. Second-year students advance their skills in their chosen events or learn new events. Second-year students also are expected to assist in the training of novice competitors. All students are expected to learn to set realistic goals for their performance and to work independently to reach those goals.
Credits 1.0
Grades Offered 10, 11, 12

Debate/Public Speaking III

Third year students advance their skills in their chosen events or learn new events. They are expected to assist in the training of novice competitors. All students are expected to learn to set realistic goals for their performance and to work independently to reach those goals.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Debate/Public Speaking I and II

Drama I

These courses acquaint students with phases of dramatic productions. First-year students learn the basics of acting, evaluation of performance and technical theater (make-up, set design, lighting and sound). Second-year students continue to develop their talents and learn to direct productions.
Credits 1.0
Grades Offered 10, 11, 12

Drama II

These courses acquaint students with phases of dramatic productions. First-year students learn the basics of acting, evaluation of performance and technical theater (make-up, set design, lighting and sound). Second-year students continue to develop their talents and learn to direct productions.
Credits 1.0
Grades Offered 10, 11, 12

Drama III

This is a high school course intended for students who successfully complete Drama I and II. The student will select one area of theatre for intensive study. The student may choose to focus upon playwriting, lighting, costume design and construction, acting, makeup design and application, choreography, musical theatre, directing, box office (ticket sales, business management, budgeting, promotion), film studies (production or critical evaluation), or another field selected with the guidance of the instructor. The student will work in a leadership capacity with the Drama I and Drama II classes in addition to independent study projects and assignments. Assessment will be based upon the Virginia Standards of Learning for Theatre Arts.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Drama I and II

Journalism I

These courses provide the training necessary to produce a newspaper. First-year students are trained in the skills necessary to obtain an editorial position on the newspaper staff the following year. They also receive instruction in such areas as news, feature, sports and editorial writing; layouts; proofreading; copyreading; and sales. Second-year students learn advanced writing and newspaper production skills and occupy editorial positions on the school newspaper staff. Work includes writing copy, designing and pasting-up pages, providing photographic coverage of school events, selling advertising space and distributing the paper.
Credits 1.0
Grades Offered 10, 11, 12

Journalism II

These courses provide the training necessary to produce a newspaper. First-year students are trained in the skills necessary to obtain an editorial position on the newspaper staff the following year. They also receive instruction in such areas as news, feature, sports and editorial writing; layouts; proofreading; copyreading; and sales. Second-year students learn advanced writing and newspaper production skills and occupy editorial positions on the school newspaper staff. Work includes writing copy, designing and pasting-up pages, providing photographic coverage of school events, selling advertising space and distributing the paper.
Credits 1.0
Grades Offered 10, 11, 12

Journalism III

The student will select one area of journalism for intensive, independent study. The student may choose to focus on reporting and news writing, layout and design, photography or advertising, or another field with the approval and guidance of the advisor. In addition to the independent study, the student will work in a leadership capacity (editor) with the Journalism I and II classes. The intensive independent work, combined with the editorial responsibilities of the student newspaper, is designed to prepare a student to study journalism—with an emphasis on news editorial—as an undergraduate major.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Journalism I and II

Publications I

Students learn all aspects of producing a publication including layout and design, copywriting, photography, graphic arts and advertising. The overall objective is to develop the skills needed to produce quality publications including the school yearbook. Other small scale publication projects are used to broaden students' experiences in production skills.
Credits 1.0
Grades Offered 10, 11, 12

Publications II

Students learn all aspects of producing a publication including layout and design, copywriting, photography, graphic arts and advertising. The overall objective is to develop the skills needed to produce quality publications including the school yearbook. Other small scale publication projects are used to broaden students' experiences in production skills.
Credits 1.0
Grades Offered 10, 11, 12

Publications III

This is a high school course intended for students who successfully complete Publications I and II. The student will select one area of publications for intensive, independent study. The student may choose to focus on reporting and news writing, layout and design, photography or advertising, or another field with the approval and guidance of the advisor. In addition to the independent study, the student will work in a leadership capacity (editor) with the Publications I and II classes. The intensive, independent work, combined with the editorial responsibilities of the yearbook, is designed to prepare a student to study photojournalism in college and to provide a transition from work on the high school year book to work on a collegiate publication. Note: Students may elect either Journalism III or Publications III, but they may not receive credit for both courses.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Publications I and II

Speech Communications

This course introduces students to the basics of speech communication. Particular emphasis will be given to communication ethics, interviewing, group discussion, informative speaking, persuasive speaking, debate, parliamentary procedure, radio and television broadcasting and oral interpretation of literature. Students participate in a variety of speech and debate activities designed to develop self-confidence and poise through preparation, performance and evaluation both competitively and non-competitively. This course is designed to benefit students planning a career in law, political science, education, radio or television broadcasting, consumer relations, marketing, or administration. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 10, 11, 12

English Language Learners

ESL Algebra Readiness

This course is designed for Multilingual Learners to support the development of the mathematics and language skills necessary for success in Algebra I. Students experience number concepts and skills, algebra-readiness concepts and skills, proportional reasoning, and geometric applications of algebra. The goals of this course are twofold: to prepare learners for Algebra I and future math courses building the background knowledge by developing mathematics skills from correlated bridging standards and to develop students' academic language to communicate information, ideas and concepts in mathematics.
Credits 1.0
Grades Offered 9
Prerequisites
Level 1 or 2 LEP Student

ESL Language I

This course is designed to provide instruction and reinforcement for students to develop basic vocabulary and reading comprehension skills that will enable level 1 or 2 LEP students to understand vocabulary, phrases and expressions most commonly used in the English language. This course will also teach the fundamentals of grammar usage and mechanics for students acquiring basic English skills in speaking and writing. The student will participate in a variety of listening, speaking, reading and writing activities to gain an understanding of the English language.
Credits 1.0
Grades Offered 9
Prerequisites
Level 1 or 2 LEP Student

ESL Language II

This course is designed to enable students who have mastered the basic fundamentals of reading comprehension, vocabulary and writing skills to develop those skills to a more proficient level, preparing the students to master the concepts needed to be successful in the traditional high school English curriculum. This course will provide instruction and reinforcement for students to develop vocabulary and reading comprehension skills to a greater fluency. It will include practice in higher levels of critical thinking to gain a greater understanding of the written and spoken word and instruction in basic literary devices commonly understood by a student entering a ninth grade English course. This course may be completed prior to enrollment in English 9 or as support in conjunction with English 9.
Credits 1.0
Grades Offered 9, 10
Prerequisites
Level 2 or 3 LEP Student

ESL Math

The purpose of this course is to provide an opportunity for students to work on developing English language skills relevant to the study of mathematics. Students will work on the vocabulary and concept development in the areas of number sense, computation and estimation, measurement, geometry, probability and statistics, and patterns, function and Algebra. Students will be provided with the basic skills to support the formal study of Algebra I Standards of Learning. This course may be completed before enrollment in or concurrently with Algebra I.
Credits 1.0
Grades Offered 9
Prerequisites
Level 1 or 2 LEP Student

ESL Resource

This course is a semester-long class that offers time for students to complete content area homework, projects, study guides, and general assignments. New material presented includes mini lessons on the cultural, organizational, and conduct expectations related to positive school performance. Students also utilize time to practice concepts essential to success in other classes and to work collaboratively on projects to improve their language through conversation.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Level 1 or 2 LEP Student

ESL Resource

This course is a semester-long class that offers time for students to complete content area homework, projects, study guides, and general assignments. New material presented includes mini lessons on the cultural, organizational, and conduct expectations related to positive school performance. Students also utilize time to practice concepts essential to success in other classes and to work collaboratively on projects to improve their language through conversation.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Level 1 or 2 LEP Student

ESL Resource

This course is a semester-long class that offers time for students to complete content area homework, projects, study guides, and general assignments. New material presented includes mini lessons on the cultural, organizational, and conduct expectations related to positive school performance. Students also utilize time to practice concepts essential to success in other classes and to work collaboratively on projects to improve their language through conversation.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Level 1 or 2 LEP Student

ESL Resource

This course is a semester-long class that offers time for students to complete content area homework, projects, study guides, and general assignments. New material presented includes mini lessons on the cultural, organizational, and conduct expectations related to positive school performance. Students also utilize time to practice concepts essential to success in other classes and to work collaboratively on projects to improve their language through conversation.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Level 1 or 2 LEP Student

ESL Resource

This year-long course offers time for students to complete content area homework, projects, study guides, and general assignments. New material presented includes mini lessons on the cultural, organizational, and conduct expectations related to positive school performance. Students also utilize time to practice concepts essential to success in other classes and to work collaboratively on projects to improve their language through conversation.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Level 1 or 2 LEP Student

ESL Resource

This year-long course offers time for students to complete content area homework, projects, study guides, and general assignments. New material presented includes mini lessons on the cultural, organizational, and conduct expectations related to positive school performance. Students also utilize time to practice concepts essential to success in other classes and to work collaboratively on projects to improve their language through conversation.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Level 1 or 2 LEP Student

ESL Resource

This year-long course offers time for students to complete content area homework, projects, study guides, and general assignments. New material presented includes mini lessons on the cultural, organizational, and conduct expectations related to positive school performance. Students also utilize time to practice concepts essential to success in other classes and to work collaboratively on projects to improve their language through conversation.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Level 1 or 2 LEP Student

ESL Resource

This year long course is a daily class that offers time for students to complete content area homework, projects, study guides, and general assignments. New material presented includes mini lessons on the cultural, organizational, and conduct expectations related to positive school performance. Students also utilize time to practice concepts essential to success in other classes and to work collaboratively on projects to improve their language through conversation.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Level 1 or 2 LEP Student

ESL Science

The purpose of this course is to introduce and develop language in science including important concepts in geology, weather, astronomy and experimental design for the English language learner. Basic vocabulary from the Earth Science curriculum and general concepts of experimental design will be investigated. Concrete, collaborative learning experiences will be emphasized. Students will engage in inquiry activities with an emphasis on listening, speaking, reading and writing in science including experimental design and scientific investigations. Basic questioning techniques, vocabulary quizzes, projects, lab reports and tests will be used to assess learning by students. Students will be provided with basic skills in support of the Earth Science Standards of Learning. This course may be completed prior to the enrollment in Earth Science or as support in conjunction with Earth Science.
Credits 1.0
Grades Offered 9, 10
Prerequisites
Level 1 or 2 LEP Student

ESL Social Studies

This course is designed to provide support in language acquisition for LEP students in the areas of social studies and geography. Skills and vocabulary supporting World History I will be taught and enriched with a variety of activities. This course may be completed prior to enrollment in World History I or as support in conjunction with World History I.
Credits 1.0
Grades Offered 9, 10
Prerequisites
Level 1 or 2 LEP Student

Family and Consumer Sciences

Program Description

Family and Consumer Sciences programs facilitate student progress toward a set of unifying goals in the areas of academic achievement, cultural and environmental issues, health and

safety, individual and family relations, leadership and workplace ethics, and application of technology. Courses provide training in areas related to early childhood, nutrition, housing and life management. The objective of the program is to develop responsible citizens and leaders in family, community and work settings. Students have an opportunity to participate in co-curricular activities through Family, Career and Community Leaders of America (FCCLA). These activities are an integral part of the program and are designed to enhance the course offerings through leadership development. A lab fee is required for some courses.

Work-based Learning

Cooperative Education (Co-op) and Internships are high-quality work-based learning experiences for juniors and seniors that place the student in a workplace environment. This placement allows the student to develop and practice knowledge and skills for a specific career field related to the student's career interests, abilities, and goals. Co-op is a paid work-based learning experience while internships may be paid or unpaid. Co-op and internships are connected to classroom learning and are guided by a formal, written training plan that defines specific academic, technical, and workplace skills to be mastered. Applications may be obtained from a school counselor or a CTE teacher.

On-the-job hours required to earn credit through cooperative education or internship are as follows:
140 hours = .5 credit
280 hours = 1 credit

Job shadowing is a short-term experience available as a part of Career and Technical Education courses through an application process. Juniors and seniors who are currently enrolled in CTE courses or who have completed a coherent sequence of CTE courses are eligible. The application process includes student narrative and teacher recommendation. Students participating in this work-based learning experience are required to complete a reflective exercise.

Credentialing

The High School Industry Credentialing initiative encourages students to work toward a selected industry credential or state license while pursuing a high school diploma. The Virginia Department of Education evaluates on an on-going basis industry credentials against prescribed criteria for graduation requirements for the Standard Diploma (8VAC20-131-50.B) and student-selected verified credit (8VAC20-131-110.C). Credentialing exams are available to any student taking a Career and Technical Education course.

Culinary Arts I

Culinary Arts I provides students with a foundational understanding of the food service industry and opportunities to build technical skills in food preparation and service. Students examine basic rules of kitchen safety and sanitation, of purchasing and receiving, and of fundamental nutrition.
Credits 2.0
Grades Offered 12

CTE
Yes
Prerequisites
Nutrition and Wellness

Culinary Arts I (Co-op/ Internship)

Culinary Arts I provides students with a foundational understanding of the food service industry and opportunities to build technical skills in food preparation and service. Students examine basic rules of kitchen safety and sanitation, of purchasing and receiving, and of fundamental nutrition.
Credits 3.0
Grades Offered 12

CTE
Yes
Prerequisites
Nutrition and Wellness

Culinary Arts II

Culinary Arts II students continue to acquire a comprehensive knowledge of the food service industry while refining their technical skills. Students apply kitchen safety and sanitation, nutritional principles, and advanced food-preparation techniques. Students may complete work-based learning in venues such as the a la carte kitchen, the dining room, and catered functions.
Credits 2.0
Grades Offered 12

CTE
Yes
Prerequisites
Culinary Arts I

Culinary Arts II (Co-op/ Internship)

Culinary Arts II students continue to acquire a comprehensive knowledge of the food service industry while refining their technical skills. Students apply kitchen safety and sanitation, nutritional principles, and advanced food-preparation techniques. Students may complete work-based learning in venues such as the a la carte kitchen, the dining room, and catered functions.
Credits 3.0
Grades Offered 12

CTE
Yes
Prerequisites
Culinary Arts I

Early Childhood Education I

Students prepare for a professional career in early childhood education including home, family, or institution-based child care services and/or as background information for post-secondary study in any field working with children (e.g., medical, social services, and education). This dynamic course focuses on the planning, organizing, and conducting of meaningful play and learning activities; child monitoring and supervision; record keeping; and assessment and referral procedures. Critical thinking, practical problem solving, collaborative learning and application, and entrepreneurship opportunities within the field of early childhood education are emphasized. Classroom theory will be delivered through a hybrid method of class time and online learning (Google Classroom) along with practical experiences (e.g., local child care centers, elementary schools, other appropriate institutions) under the supervision of the instructor to meet the 280 hour course requirement.
Credits 2.0
Grades Offered 10, 11, 12

CTE
Yes
Recommended
Introduction to Teaching
Prerequisites
Cumulative 2.5 GPA, and Teacher Recommendation

Early Childhood Education II

Students expand upon the experiences of Early Childhood Education level I in addition to an overview of special education as they focus on occupational skills needed by personnel employed in early childhood-related fields, such as education, medical/health care, social services, counseling, psychology, and entrepreneurship. Work-based learning experiences (e.g., local child care centers, elementary schools, other appropriate institutions) under the supervision of the instructor are required. Critical thinking, practical problem solving, collaborative learning and application, and entrepreneurship opportunities within the field of early childhood education are emphasized. Classroom theory will be delivered through a hybrid method of class time and online learning (Google classroom) along with practical experiences (e.g., local child care centers, elementary schools, other appropriate institutions) under the supervision of the instructor to meet the 280 hour course requirement. Students can choose the co-op method to earn the third credit. Those students will participate in an additional component of on-the-job training outside of the school day in an approved position with continuing supervision throughout the school year for an additional credit.

Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Early Childhood Education I

Early Childhood Education II (Co-op/Internship)

Students expand upon the experiences of Early Childhood Education level I in addition to an overview of special education as they focus on occupational skills needed by personnel employed in early childhood-related fields, such as education, medical/health care, social services, counseling, psychology, and entrepreneurship. Work-based learning experiences (e.g., local child care centers, elementary schools, other appropriate institutions) under the supervision of the instructor are required. Critical thinking, practical problem solving, collaborative learning and application, and entrepreneurship opportunities within the field of early childhood education are emphasized. Classroom theory will be delivered through a hybrid method of class time and online learning (Google classroom) along with practical experiences (e.g., local child care centers, elementary schools, other appropriate institutions) under the supervision of the instructor to meet the 280 hour course requirement. Students can choose the co-op method to earn the third credit. Those students will participate in an additional component of on-the-job training outside of the school day in an approved position with continuing supervision throughout the school year for an additional credit.

Credits 3.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Early Childhood Education I

Independent Living

Students learn skills for living independently. Topics include setting individual goals, exploring careers, managing finances, planning and safely preparing healthy meals and snacks and clothing maintenance. Students explore language and regulations related to real estate purchase and lease and the responsibilities for maintaining a home. Students who earn a credit in this course may not take Independent Living 8214.
Credits 1.0
Grades Offered 9, 10, 11, 12

CTE
Yes

Introduction to Interior Design

This course creates a career pathway in visual arts for the students in Family and Consumer Sciences. This course is the second part of a completer sequence which includes our current course offering of Independent Living.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes

Introduction to Interior Design (Co-op/Internship)

This course creates a career pathway in visual arts for the students in Family and Consumer Sciences. This course is the second part of a completer sequence which includes our current course offering of Independent Living.
Credits 2.0
Grades Offered 11, 12

CTE
Yes

Introduction to Teaching

This exploratory course fosters student interest, understanding, and appreciation of the teaching profession and allows students an introduction to careers in early childhood, elementary, and secondary education. Students are taught to develop self-awareness, collaborate and communicate with peers, build positive learning environments, and discover learning differences of others. The curriculum is designed to help students set attainable goals in the Education and Training Career Cluster. This course introduces students to the high school Virginia Teachers for Tomorrow (VTfT) program and Early Childhood Education. Additional educational leadership opportunities are offered through the student organization, Educators Rising. This course combined with Early Childhood Education I or Teachers for Tomorrow create a completion sequence.
Credits 1.0
Grades Offered 9, 10, 11, 12

CTE
Yes

Nutrition and Wellness

This course focuses on making choices that promote good health, planning nutritious meals and snacks, selecting and using equipment for food preparation and identifying strategies to promote optimal nutrition. Math and science skills are reinforced. Activities to promote wellness will be included.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes

Teachers for Tomorrow I

The Teachers for Tomorrow course introduces students to a career in teaching and education. The primary elements of the curriculum components are the learner, the school, and the teacher and teaching. The components are intentionally broad in scope and provide a great deal of flexibility based on the career interest of a student. In addition to the fundamental curriculum components, all students are required to observe and participate in an internship outside the teacher cadet classroom. The internship may be done from the kindergarten level through 12th grade.
Credits 1.0
Grades Offered 11, 12

CTE
Yes
Recommended
Introduction to Teaching
Prerequisites
Cumulative 2.5 GPA, and Teacher Recommendation

Gifted

Gifted Independent Study

This semester elective which students can take both semesters in eleventh and twelfth grades is designed to help meet the needs of gifted high school students by providing opportunities to assess career choices through mentorship experiences, self-assessment exercises, and career exploration activities. Students are matched with community professionals to complete in-depth study for a minimum of 55 hours per semester; students must also complete 20 hours of classroom instruction. Students are released from school to attend site and must provide their own transportation. A maximum of two credits may be earned by taking this course. Students wishing to take GIS for more than one semester will be served pending space availability. Students will receive a work-based learning designation as a career mentorship upon successful completion of this semester course.
Credits 0.5
Grades Offered 11, 12
Prerequisites
Student must be eligible for gifted academic services

Gifted Independent Study

This semester elective which students can take both semesters in eleventh and twelfth grades is designed to help meet the needs of gifted high school students by providing opportunities to assess career choices through mentorship experiences, self-assessment exercises, and career exploration activities. Students are matched with community professionals to complete in-depth study for a minimum of 55 hours per semester; students must also complete 20 hours of classroom instruction. Students are released from school to attend site and must provide their own transportation. A maximum of two credits may be earned by taking this course. Students wishing to take GIS for more than one semester will be served pending space availability. Students will receive a work-based learning designation as a career mentorship upon successful completion of this semester course.
Credits 0.5
Grades Offered 11, 12
Prerequisites
Student must be eligible for gifted academic services

Health and Medical Sciences

Program Description

Health and Medical Sciences prepare students for careers in disciplines related to medicine and other health occupations programs through therapeutic, diagnostic, rehabilitative, managerial and supportive services.

Because of the continued need for health care workers, Valley Health Systems partnered with local school divisions to implement the Introduction to Health and Medical Sciences course. This course is designed for students considering a career in Health and Medical Science. The Introduction to Health and Medical Sciences course is available for students in grades 10-12 but is recommended for 10th graders so that students have time to take one of the sequential course offerings in Nurse Aide, Pharmacy Technician, Sports Medicine, EMT, or Medical Systems Administration.

Work-based Learning

Health and Medical Science programs have specific work-based learning guidelines determined by the corresponding regulatory agency or accrediting body. Programs with these requirements include Pharmacy Technician Academy, the EMT Academy, Nurse Aide, and Patient Care Technician. Students must complete the required clinical hours as part of the program in which they are enrolled.

Credentialing

The High School Industry Credentialing initiative encourages students to work toward a selected industry credential or state license while pursuing a high school diploma. The Virginia Department of Education evaluates on an on-going basis industry credentials against prescribed criteria for graduation requirements for the Standard Diploma (8VAC20-131-50.B) and student-selected verified credit (8VAC20-131-110.C). Credentialing exams are available to any student taking a Career and Technical Education course.

Emergency Medical Technician I

The tasks for this first course represent the National Emergency Medical Services Educational Standards. Students explore and apply the fundamentals of emergency medical services, anatomy, physiology, and medical terminology while demonstrating skills in assessing and managing patient care, including assessing the scene and understanding shock, resuscitation, and trauma. Supervised field experience outside of school hours is required. Successful completion of this course and instructor endorsement qualifies students to enroll in EMT II to complete the program sequence. Successful completion of the second course in the sequence will earn the student CTE completer status. Successful completion of all course requirements and instructor endorsement may lead to eligibility to take the Virginia State Psychomotor Exam and the National Registry EMT cognitive exam.
Credits 5.0
Grades Offered 12

CTE
Yes
Prerequisites
Introduction to Health and Medical Sciences, and Biology

Emergency Medical Technician II

The tasks for this second course represent the National Emergency Medical Services Educational Standards. Students build on their knowledge and skills for providing basic life support by focusing on the areas of emergency medical services (EMS) operations, medical emergencies, and management of special patient populations. Supervised field experience outside of school hours is required. Successful completion of this second course in the sequence will earn the student CTE completer status. Successful completion of all course requirements and instructor endorsement may lead to eligibility to take the Virginia State Psychomotor Exam and the National Registry EMT cognitive exam.
Credits 5.0
Grades Offered 12

CTE
Yes
Prerequisites
Introduction to Health and Medical Sciences, Biology and EMT I

Introduction to Health and Medical Sciences

This course introduces the student to a variety of health care careers and develops basic skills required in all health and medical sciences. It is designed to help students understand the key elements of the U.S. health care system and to learn basic health care terminology, anatomy and physiology for each body system, pathologies, diagnostic and clinical procedures, therapeutic interventions, and the fundamentals of traumatic and medical emergency care.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes

Nurse Aide I

This first course in the Nurse Aide Program is an occupational preparation course beginning at the 11th grade level, emphasizes the study of nursing occupations as related to the health care system. Students study normal growth and development, simple body structure and function, and medical terminology and are introduced to microbes and disease. They receive elementary skill training in patient-nurse aide relationships; taking and recording of vital signs; cardiopulmonary resuscitation; and bathing, feeding, dressing, and transporting of patients in hospitals and nursing homes.

Credits 1.0
Grades Offered 11, 12

CTE
Yes
Recommended
Introduction to Health and Medical Sciences, Enrolled in or completed Biology II: Survey of Human Systems

Nurse Aide II

Nurse Aide II is an occupational preparation course emphasizing body systems and diseases as related to advanced clinical care of the acute medical-surgical patient, the chronically ill, and the elderly. Students receive skills training and hands-on clinical experiences in a healthcare setting. Forty clinical hours of on-the-job instruction in a licensed nursing home are required.

Credits 1.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
C or Better in Nurse Aide I

Patient Care Technician

This is an occupational course offered as a senior capstone to the Nurse Aide program that involves instruction at DJHC during the afternoon block to prepare for additional certification. Students with CNA certification will maintain continuous employment in a health care facility for 11–15 hours per week throughout the school year. Students must have a “B” average in Nurse Aide I and II, submit an application and two letters of recommendation to be accepted into this program. The DJHC nursing instructor coordinates student placement in a health care related job. Students learn and practice workplace readiness, ECG, basic medical, lab and exam procedures and skills, draw blood, and provide basic patient care.

Credits 2.0
Grades Offered 12

CTE
Yes
Recommended
Biology II: Survey of Human Systems
Prerequisites
Nurse Aide II, CNA Certification, Instructor Recommendation

Pharmacy Technician I

This is the first course in a 400 hour certificate program designed to provide students with the basic skills and knowledge to begin work as a pharmacy technician. The completion of Pharmacy Technician I and Pharmacy Technician II including 130 experiential hours will fulfill the requirements of the ASHP/ACPE and prepare students to take either the state examination or the national examination. Trained, experienced pharmacy technicians who can demonstrate the right skills and knowledge should be able to pursue many exciting and respected career options or postsecondary study in the pharmacy field.

Credits 1.0
Grades Offered 12

CTE
Yes
Recommended
Introduction to Health and Medical Sciences and Honors Anatomy and Physiology
Prerequisites
Chemistry and Algebra II

Pharmacy Technician II

This is the second course in a 400 hour certificate program designed to provide students with the basic skills and knowledge to begin work as a pharmacy technician. The completion of Pharmacy Technician I and Pharmacy Technician II including 130 experiential hours will fulfill the requirements of ASHP/ACPE and prepare students to take either the state examination or the national examination. Trained, experienced pharmacy technicians who can demonstrate the right skills and knowledge should be able to pursue many exciting and respected career options or postsecondary study in the pharmacy field.
Credits 1.0
Grades Offered 12

CTE
Yes
Prerequisites
Pharmacy Technician I

Sports Medicine I

This course is designed to introduce students to the field of athletic training and sports medicine. The course introduces students to topics such as human anatomy and physiology, nutrition, biomechanics, medical terminology, injuries and illnesses, and legal and ethical issues in sports medicine. Students also examine prospective careers in the medical field. Note: This course will only be offered if licensed staff is available.
Credits 1.0
Grades Offered 11, 12

CTE
Yes
Recommended
Introduction to Health and Medical Sciences

Sports Medicine I (Co-op/ Internship)

This course is designed to introduce students to the field of athletic training and sports medicine. The course introduces students to topics such as human anatomy and physiology, nutrition, biomechanics, medical terminology, injuries and illnesses, and legal and ethical issues in sports medicine. Students also examine prospective careers in the medical field. Note: This course will only be offered if licensed staff is available.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Recommended
Introduction to Health and Medical Sciences

Sports Medicine II

This course builds upon basic knowledge acquired in Sports Medicine I on topics such as exercise physiology, biomechanics, exercise program design and injury prevention, assessment, treatment, and management. Students prepare for a career in the medical field, including completing an internship. Upon successful completion of this course, students may be eligible to take the National Academy of Sports Medicine-Certified Personal Trainer (NASM-CPT) exam.
Credits 1.0
Grades Offered 12

CTE
Yes
Prerequisites
Sports Medicine I

Sports Medicine II (Co-op/ Internship)

This course builds upon basic knowledge acquired in Sports Medicine I on topics such as exercise physiology, biomechanics, exercise program design and injury prevention, assessment, treatment, and management. Students prepare for a career in the medical field, including completing an internship. Upon successful completion of this course, students may be eligible to take the National Academy of Sports Medicine-Certified Personal Trainer (NASM-CPT) exam.
Credits 2.0
Grades Offered 12

CTE
Yes
Prerequisites
Sports Medicine I

Health and Physical Education

Standard Diploma	Credits	Advanced Studies Diploma	Credits
Health and Physical Education	2	**Health and Physical Education**	2
All students must receive training in first aid, CPR, and AED. This training will be included in the FCPS Health and PE 10 curriculum.		All students must receive training in first aid, CPR, and AED. This training will be included in the FCPS Health and PE 10 curriculum.	

The Health and Physical Education program provides students with the opportunity to develop skills and habits that assure lifelong wellness, including fitness and both mental and physical well being. Through a variety of course options, students learn how a healthy lifestyle assures an enriched quality of life.

Competitive Team Sports

Students receive an intensive competitive experience in team sports such as basketball, volleyball, speedball, soccer, flag football, angleball/wallyball, team handball and softball. For th grade students, this course is in addition to required physical education, not a substitute for it. Sufficient enrollment will be required for this course to be offered.
Credits 0.5
Grades Offered 10, 11, 12
Prerequisites
Physical Education I

Driver Education

Students receive instruction in all phases of driving including five days emphasizing issues related to alcohol and other drugs. Students may acquire a Virginia Learner's Permit at age 15 years and six months. It is recommended that the age of the student be kept in mind when selecting this class. Students who wish to take Behind-the-Wheel training from a private company should get a DEC-1 form from their teachers when completing Driver Education.
Credits 0.5
Grades Offered 9, 10, 11, 12

Health I

Students in grade nine integrate a variety of concepts, skills and behaviors to plan their personal health goals. These include prevention of disease and chemical addiction for promotion of a healthy lifestyle. Students demonstrate confidence in their knowledge and skills. They see themselves as having a role in creating a healthy lifestyle for themselves as individuals, for their families and for the larger community. Students engage in promoting health in their community.
Credits 0.5
Grades Offered 9

Health II

Students receive instruction in achieving and maintaining health and wellness for a lifetime. The course consists of basic first aid, communicable/non-communicable diseases, and consumer health.
Credits 0.5
Grades Offered 10, 11, 12
Prerequisites
Health I

Health II and Driver Education

The course consists of basic first aid and drivers education. Students receive instruction in all phases of driving including five days emphasizing issues related to alcohol and other drugs. Students may acquire a Virginia Learner's Permit at age 15 years and six months. It is recommended that the age of the student be kept in mind when selecting this class. Students who wish to take Behind-the-Wheel training from a private company should get a DEC-1 form from their teachers when completing Driver Education.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Health I

Lifetime Sports

Students engage in a wide variety of chosen individual and dual sports as well as recreational games with an emphasis on wellness. Some of the following sports are offered: golf, tennis, bowling, aerobics, dance, frisbee golf, shuffleboard, bocci and horseshoes and swimming. A class fee is required.
Credits 0.5
Grades Offered 11, 12
Prerequisites
Physical Education I, Physical Education II

Organization of Competitive Team Sports

Emphasis will be placed on the techniques of officiating various sports as well as principles and philosophy of coaching as a leadership role. Students study various strategies and tactics required for team play. Students learn how to organize and implement various types of tournaments. This course may not be substituted for PE I or PE II. Sufficient enrollment will be required for this course to be offered.
Credits 0.5
Grades Offered 10, 11, 12
Prerequisites
Physical Education I

Outdoor Education

Students explore lifetime experiences in the great outdoors and may include an optional weekend camping trip for those who have mastered the skills and shown the responsibility and maturity to participate. Activities include camping, hiking, angling, casting, boating/canoeing, orienteering, lashing/knots, identifying wild plants and animals, responding to emergency situations, using survival skills and practicing other skills required to enjoy the great outdoors. A class fee is required.
Credits 0.5
Grades Offered 11, 12
Prerequisites
Physical Education I, Physical Education II

Physical Education I

The objectives of this required course for all students include identifying the five components of physical fitness, recognizing skills/activities that will enhance each component, and analyzing former and current physical fitness results. Participation in a variety of sports/movement activities will assist the student in attaining his/her individual fitness goals.
Credits 0.5
Grades Offered 9

Physical Education II

The objectives of this required course for all students are identifying and explaining the five components of physical fitness, assessing personal fitness, and developing and implementing a plan for maintaining and improving personal fitness. After students have completed this course, they will have the knowledge and skills to develop a fitness plan for the changing stages of their lives.
Credits 0.5
Grades Offered 10
Prerequisites
Physical Education I

Physical Education II Strength Concentration

The objectives of this course, which may be taken in place of Physical Education II, include the Standards of Learning for Physical Education II. Students identify the five components of fitness, recognizing skills/activities that enhance each component, and analyzing former and current physical fitness results. Students develop a personal fitness plan and participate in a variety of activities designed to enhance strength, power, agility, speed and rhythmic movements. This course is designed for those students who desire a more intense physical experience. This course differs from the PE II course in that it concentrates more intensely on strength and power development. Team activities are included as specified in the Standards of Learning. Additional coursework will be accomplished through individual activities.
Credits 0.5
Grades Offered 10

Recommended
Physical Education I

Physical Education I Strength Concentration

The objectives of this course, which may be taken in place of Physical Education I, include the Standards of Learning for Physical Education I. Students identify the five components of fitness, recognizing skills/activities that enhance each component, and analyzing former and current physical fitness results. Students develop a personal fitness plan and participate in a variety of activities designed to enhance strength, power, agility, speed and rhythmic movements. This course is designed for those students who desire a more intense physical experience. This course differs from the PE I course in that it concentrates more intensely on strength and power development. Team activities are included as specified in the Standards of Learning. Additional coursework will be accomplished through individual activities.
Credits 0.5
Grades Offered 9

Techniques of Strength Training Elective

Students are instructed in all components of fitness. The course emphasis is strength training, utilizing a core program designed to enhance strength levels of all major muscle groups and an auxiliary program tailored to meet individual needs. This course is recommended for students with a sincere commitment to fitness and well being. This course may not be substituted for PE I or PE II. Students will be limited to a maximum of two credits for this course.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Physical Education I, Physical Education II (May be taken concurrently with PE II)

Industrial Maintenance Technology Academy

IMTA is taught on the campus of Laurel Ridge Community College. Competitive applications are accepted in the school division office of Career and Technical Education each spring. Two

students from each high school are selected by committee to attend the academy annually, transportation is provided from each high school.

Upon successful completion of this one-year academy, students earn high school credit, 31 college credits, and complete a career Studies Certificate in HVAC and Electricity. All applicants must have met all graduation requirements and must take the senior level English and Government at their home school.

IMTA prepares students for living-wage jobs in our community. Students learn skills in HVAC, hydraulics and pneumatics, and electricity that will allow them to work in the engineering department in a large building or industrial facility. Students will also learn skills related to a variety of industrial safety regulations; the use of calipers and micrometers and math conversions for precision measuring/quality control; practice drawing and interpreting technical drawings.

Students will successfully master all course competencies and upon successful completion of this one-year academy, will be Career and Technical Education Completers in Industrial Maintenance Technician I and Industrial Maintenance Technician II. Work-based learning through the Apprenticeship model may be available for an additional high school credit dependant upon qualified Laurel Ridge Community College staffing.

The High School Industry Credentialing initiative encourages students to work toward a selected industry credential or state license while pursuing a high school diploma. The Virginia Department of Education evaluates on an on-going basis industry credentials against prescribed criteria for graduation requirements for the Standard Diploma (8VAC20-131-50.B) and student-selected verified credit (8VAC20-131-110.C). Credentialing exams are available to any student taking a Career and Technical Education course.

Apprenticeship

Students who register as an apprentice with the Virginia Department of Industry and Labor in Grades 11 or 12 and continue employment throughout the school year are eligible to earn an elective credit in Apprenticeship. This work-based learning option is dependent upon availability of qualified staff for supervision.
Credits 1.0
Grades Offered 11, 12

CTE
Yes

Industrial Maintenance Technology

Credits 5.0
Grades Offered 12

CTE
Yes
Prerequisites
GPA: 2.5 or better and Algebra I Applicants must have met all requirements for graduation and must take Government and English their senior year. Applicants must have successfully completed one (or more) of the following: Applied Agriculture Concepts (8073) Metal Fabrication and Emerging Technologies (8019) Agricultural Structural Systems (8017) Technical Drawing and Design (8435) Engineering (8450 or 8491) Electronics (8412 or 8416) Manufacturing (8425 or 8427) Automotive Technology (8506, 8507, or 8508) Building Trades (8515 or 8516)

Industrial Maintenance Technology

Credits 5.0
Grades Offered 12

CTE
Yes
Prerequisites
GPA: 2.5 or better and Algebra I Applicants must have met all requirements for graduation and must take Government and English their senior year. Applicants must have successfully completed one (or more) of the following: Applied Agriculture Concepts (8073) Metal Fabrication and Emerging Technologies (8019) Agricultural Structural Systems (8017) Technical Drawing and Design (8435) Engineering (8450 or 8491) Electronics (8412 or 8416) Manufacturing (8425 or 8427) Automotive Technology (8506, 8507, or 8508) Building Trades (8515 or 8516)

Marketing Education

Program Description

A career in marketing may include selling, management, advertising, fashion merchandising and business ownership. The Marketing Education program explores these fields in a realistic way through guest speakers, community projects, field trips and supervised on-the-job instruction. Students develop essential skills for today's job market and may continue their marketing career interests at the college level. A lab fee is required in most courses.

DECA, "An Association of Marketing Students," is the career and technical education association for marketing students. DECA promotes leadership development and civic responsibility, and provides students the opportunity to demonstrate teamwork, problem solving and critical thinking skills.

Work-based Learning

Cooperative Education (Co-op) and Internships are high-quality work-based learning experiences for juniors and seniors that place the student in a workplace environment. This placement allows the student to develop and practice knowledge and skills for a specific career field related to the student's career interests, abilities, and goals. Co-op is a paid work-based learning experience while internships may be paid or unpaid. Co-op and internships are connected to classroom learning and are guided by a formal, written training plan that defines specific academic, technical, and workplace skills to be mastered. Applications may be obtained from a school counselor or a CTE teacher.

On-the-job hours required to earn credit through cooperative education or internship are as follows:
140 hours = .5 credit
280 hours = 1 credit

Job shadowing is a short-term experience available as a part of Career and Technical Education courses through an application process. Juniors and seniors who are currently enrolled in CTE courses or who have completed a coherent sequence of CTE courses are eligible. The application process includes student narrative and teacher recommendation. Students participating in this work-based learning experience are required to complete a reflective exercise.

Credentialing

The High School Industry Credentialing initiative encourages students to work toward a selected industry credential or state license while pursuing a high school diploma. The Virginia Department of Education evaluates on an on-going basis industry credentials against prescribed criteria for graduation requirements for the Standard Diploma (8VAC20-131-50.B) and student-selected verified credit (8VAC20-131-110.C). Credentialing exams are available to any student taking a Career and Technical Education course.

Advanced Fashion Marketing

Students are provided an in-depth study of marketing functions with emphasis on business planning to include such topics as entrepreneurial skills, marketing research, merchandising, management and supervision, and strategic planning as it relates to the fast-paced and growing fashion industry. Career options within this industry will also be explored.
Credits 1.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Fashion Marketing

Advanced Fashion Marketing (Co-op/Internship)

Students are provided an in-depth study of marketing functions with emphasis on business planning to include such topics as entrepreneurial skills, marketing research, merchandising, management and supervision, and strategic planning as it relates to the fast-paced and growing fashion industry. Career options within this industry will also be explored.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Fashion Marketing

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.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes

Digital and Social Media Marketing (Co-op/Internship)

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.
Credits 2.0
Grades Offered 11, 12

CTE
Yes

Fashion Marketing

Students learn how famous designers, clothing manufacturers and retailers market their products to the customer. Fashion Marketing takes students on a journey through the glamorous world of fashion. From the history of fashion to current trends in the marketplace, students learn to analyze how fashion affects the country's economy as well as its lifestyle and "mood." Students will also study the home furnishing industry, visual merchandising, economics/ marketing in the fashion industry and explore related careers.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Principles of Business and Marketing or any Marketing class

Fashion Marketing (Co-op/ Internship)

Students learn how famous designers, clothing manufacturers and retailers market their products to the customer. Fashion Marketing takes students on a journey through the glamorous world of fashion. From the history of fashion to current trends in the marketplace, students learn to analyze how fashion affects the country's economy as well as its lifestyle and "mood." Students will also study the home furnishing industry, visual merchandising, economics/ marketing in the fashion industry and explore related careers.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Principles of Business and Marketing or any Marketing class

Principles of Business and Marketing

Students are introduced to entrepreneurship/free enterprise, human resource essentials, marketing strategies, communications and interpersonal relations, employable skills and career planning and technological innovations. The student is provided a variety of learning methods including practical activities, simulations, computer activities, guest speakers and role playing. This course is recommended for students planning to pursue programs of study in marketing or business. This course is a requirement for students planning to co-op through the marketing program.
Credits 1.0
Grades Offered 9, 10, 11, 12

CTE
Yes

Sports and Entertainment Management

Students will continue their study of the sports, entertainment and recreation industry including the impact of Internet marketing and international marketing in this area. Other topics include market research, market segmentation and sponsorship, as well as planning, implementing and evaluating SER events. Also, students will study the roles of agents, personal managers and labor unions in SER. Additional study will be focused on developing a career plan in the sports, entertainment and recreation area. Computer and technology applications supporting this course are studied. Students taking the co-op course will work in an employment setting related to the SER industry.
Credits 1.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Sports, Entertainment and Recreation Marketing

Sports and Entertainment Management (Co-op/Internship)

Students will continue their study of the sports, entertainment and recreation industry including the impact of Internet marketing and international marketing in this area. Other topics include market research, market segmentation and sponsorship, as well as planning, implementing and evaluating SER events. Also, students will study the roles of agents, personal managers and labor unions in SER. Additional study will be focused on developing a career plan in the sports, entertainment and recreation area. Computer and technology applications supporting this course are studied. Students taking the co-op course will work in an employment setting related to the SER industry.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Sports, Entertainment and Recreation Marketing

Sports and Entertainment Marketing

Students will develop skills in the areas of marketing analysis, event marketing, licensing and sponsorship, communication and human relations, as they pertain to the fast-growing sports, entertainment and recreation (SER) industry. Career options within this industry will be explored.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes

Sports and Entertainment Marketing (Co-op/Internship)

Students will develop skills in the areas of marketing analysis, event marketing, licensing and sponsorship, communication and human relations, as they pertain to the fast-growing sports, entertainment and recreation (SER) industry. Career options within this industry will be explored.
Credits 2.0
Grades Offered 11, 12

CTE
Yes

Travel and Tourism Marketing

Students gain knowledge of the travel/tourism industry which is vital to the economy on a local, state, and national level. Topics covered will include cruises, airlines, lodging, and local attractions. Students develop skills in the areas of communication, human relations, customer service, industry technology, and marketing. In addition, students obtain an understanding of the global nature of the industry, travel planning, and the career options available.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes

Travel and Tourism Marketing (Co-op/Internship)

Students gain knowledge of the travel/tourism industry which is vital to the economy on a local, state, and national level. Topics covered will include cruises, airlines, lodging, and local attractions. Students develop skills in the areas of communication, human relations, customer service, industry technology, and marketing. In addition, students obtain an understanding of the global nature of the industry, travel planning, and the career options available.
Credits 2.0
Grades Offered 11, 12

CTE
Yes

Mathematics

Standard Diploma	Credits	Advanced Studies Diploma	Credits
Math	3 Math Credits; 1 Verified Credit	**Math**	4 Math Credits; 1 Verified Credit
Courses completed to satisfy this requirement shall include at least two different course selections from among Algebra I, Geometry, Algebra Functions and Data Analysis, Algebra II, or other mathematics courses approved by the Board to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit.		Courses completed satisfying this requirement shall include at least three different course selections from among Algebra I, Geometry, Algebra II or other mathematics courses above the level of Algebra II. The Board shall approve courses to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit.	

Course offerings engage students in problem solving and thinking mathematically. The learning of mathematics is an active process through which students are exposed to a broad content that reveals the usefulness of mathematics. Mathematics course offerings engage students in exploring, conjecturing, problem solving, communicating, reasoning and proof using a variety of technologies, including the graphing calculator.

Mathematics Notes: The following notes will assist in the selection of appropriate math courses:

- Criteria for placement in Honors or AP level classes: recommended score of 500 on SOL tests, an “A” or “B” in previous math classes; for AP level courses, completion of Honors level mathematics courses.
- Only one high school credit can be earned for any high school mathematics course. Recommendations to repeat a course when a grade of “D” is earned are intended to encourage improvement of mathematical skills as a foundation for success in future mathematics courses.
- Completion of Algebra II is required for an Advanced Studies diploma.

AP Calculus AB

This course is for the student who has been very successful in the honors mathematics program. The pace is faster than the Honors Calculus course and will be more challenging. Students in this course may take the Advanced Placement Exam in Calculus AB to earn college credit. With an acceptable score on this exam, students may receive college credit or advanced placement in their college mathematics course. Note: A grade of at least “B” in Honors Precalculus is recommended before enrolling in this course. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Honors Math Analysis or Advanced Algebra and Trigonometry with Department Head Advisement

AP Calculus BC

The pace of this course allows for topics from AP Calculus AB to be taught along with the Calculus BC topics of polar coordinates integration by partial fractions, Hooke’s Law, and sequences and series. Students in this course may take the Advanced Placement Exam in Calculus BC to earn college credit. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Honors Math Analysis and department head advisement

AP Computer Science A

This course is taught according to the syllabus for Computer Science A available through the College Entrance Examination Board. Major topics in the course include programming methodology, algorithms, and data structures. Topics are extended to include constructs, data types, functions, testing, debugging, algorithms, and data structures. The Java programming language is used to implement computer-based solutions to meaningful problems. Treatments of computer systems and the social implications of computing are integrated into the course. AP Computer Science A can be classified as a math or as a science graduation requirement. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Algebra I

AP Computer Science Principles

This course is designed to be the equivalent of a first semester introductory college course. This course introduces students to the foundational concepts of computer science and explores the impact computing and technology have on our society.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Algebra I

AP Precalculus

AP Precalculus centers on functions modeling dynamic phenomena. This research-based exploration of functions is designed to better prepare students for college-level calculus and provide grounding for other mathematics and science courses. In this course, students study a broad spectrum of function types that are foundational for careers in mathematics, physics, biology, health science, social science, and data science. Furthermore, as AP Precalculus may be the last mathematics course of a student's secondary education, the course is structured to provide a coherent capstone experience and is not exclusively focused on preparation for future courses.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Algebra II

AP Statistics

This college-level course in introductory statistics includes (1) exploring data: observing patterns and departures from patterns; (2) planning a study: deciding what or how to measure; (3) anticipating patterns in advance: introducing probability and simulation; (4) statistical inference: confirming models. There are several special problems/investigations culminating in a written report. Students should own or have access to a graphing calculator and a computer. Students may earn college credit through the AP Statistics exam. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 12
Prerequisites
Algebra II

Advanced Algebra

Advanced Algebra extends concepts from Algebra II with an emphasis on investigating multiple representations of functions. Topics include linear algebra, logarithmic and exponential functions, and analytic geometry, including conic sections. Students will investigate mathematical modeling through real-world data collection using graphing calculators and CBRs.
Credits 0.5
Grades Offered 10, 11, 12
Prerequisites
Algebra II

Algebra, Functions and Data Analysis

This course offers relevant, real-world experiences taught through hands-on investigations techniques using technological tools. Students will work with real-life data, conduct labs, complete projects and prepare presentations of findings. This course will prepare students to take Algebra II.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Geometry or department head screening

Algebra I

Algebra I is the beginning of the academic sequence of mathematics courses. It emphasizes the basic structure of the real number system, the techniques of algebra as reflections of this structure, and the acquired facility in applying algebraic concepts and skill. While the main focus of this course promotes algebraic skills, geometric and statistical concepts are integrated into the course to develop skills for practical applications. At the end of this course students may be tested on the Algebra I Standards of Learning.
Credits 1.0
Grades Offered 9, 10, 11, 12

Algebra II

Algebra II follows Geometry in the sequence of academic mathematics courses. Problem-solving skills are developed through algebraic, geometric, trigonometric and statistical applications. At the end of this course students may be tested on the Algebra II Standards of Learning.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Geometry

Calculus III

Multivariable Calculus presents vector-valued functions, partial derivatives, multiple integrals, matrices, vector spaces, determinants, solutions of systems of linear equations, basis and dimension eigenvalues and eigenvectors. This course is designed for students preparing for mathematical, physical science and engineering programs.
Credits 1.0
Grades Offered 12
Prerequisites
AP Calculus BC or equivalent

Data Science

In April 2022, the Virginia Department of Education approved the Data Science Standards of Learning to provide an introduction to the learning principles associated with analyzing big data. Through the use of open source technology tools, students will identify and explore problems that involve the use of data-intensive computing to find solutions and make generalizations. Students will engage in a data science problem solving instruction to interact with large data sets as a means to formulate problems, collect and clean data, visualize data, model using data, and communicate effectively about data formulated solutions. Students will use spreadsheets, CODAP and programming in Python as tools to organize and clean data, create visualizations, model, predict and analyze large data sets.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Algebra I and one additional course at or above Algebra I

Geometry

This course includes an emphasis on developing reasoning skills through the exploration of geometric relationships including properties of geometric figures, trigonometric relationships, and mathematical proofs. The course includes emphasis on two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. At the end of this course, students may be tested on the Geometry Standards of Learning.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Algebra I or Department Head Screening

Honors Algebra II

Honors Algebra II is a course for the accelerated mathematics student. An in-depth study of the structure and concepts of algebra is stressed. Challenging problems which help develop problem-solving skills are emphasized. At the end of this course students will be tested on the Algebra II Standards of Learning. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Honors Geometry

Honors Calculus

Calculus is the fifth year of the academic mathematics sequence which begins with Algebra I in the eighth grade. Topics include limits, derivatives, integrals and their applications. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Honors Math Analysis or Advanced Algebra and Trigonometry

Honors Geometry

Honors Geometry is for the accelerated mathematics student. The problems of this course are more challenging than those of the academic Geometry course. Congruent triangles, parallel lines, circles, areas and volumes, similarity, and techniques for writing proofs will be studied in depth. At the end of this course students will be tested on the Geometry Standards of Learning. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 9, 10
Prerequisites
Algebra I

Precalculus

This year-long course combines study of Advanced Algebra and Trigonometry. Students will investigate multiple representations of functions through mathematical modeling of real-world situations. Trigonometry will be investigated through the study of trigonometric definitions, applications, graphing and solving trigonometric equations and inequalities. Students will be working collaboratively to communicate using the language of mathematics, logic of procedure and interpretation of results.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Algebra II

Probability and Statistics

Students will find means and variances of random variables, simulate binomial and geometric probability distributions, interpret sampling distributions and understand the Central Limit Theorem. Students will plan and conduct an experiment, apply hypothesis-testing and conduct both large sample significance tests and Chi-square tests. This includes applying t-distributions to single and two-sample t-procedures, using tables or graphing. All students will display and analyze data using a graphing calculator and a statistical software package. Students in the year-long class will use statistical inference to draw conclusions about a population based on sample data and use probability to determine the reliability of the conclusions.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Algebra II

Probability and Statistics

Students will find means and variances of random variables, simulate binomial and geometric probability distributions, interpret sampling distributions and understand the Central Limit Theorem. Students will plan and conduct an experiment, apply hypothesis-testing and conduct both large sample significance tests and Chi-square tests. This includes applying t-distributions to single and two-sample t-procedures, using tables or graphing. All students will display and analyze data using a graphing calculator and a statistical software package. Students in the year-long class will use statistical inference to draw conclusions about a population based on sample data and use probability to determine the reliability of the conclusions.
Credits 0.5
Grades Offered 11, 12
Prerequisites
Algebra II

Senior Capstone Mathematics

Students in the Capstone Mathematics course set personal goals for college and career plans by researching prerequisite mathematics courses required to place into career cluster courses. Students use pretest data from a college placement test of the Virginia College & Career Mathematics Proficiencies to identify and work on individual gaps in skills and concepts. Students are post-tested in order for students, parents, and teachers to know potential college course placement and to target next skills. College and Career Navigation, including field experiences, is included.
Credits 1.0
Grades Offered 12
Prerequisites
AFDA or Algebra II with Department Approval

Senior Capstone Mathematics

Students in the Capstone Mathematics course set personal goals for college and career plans by researching prerequisite mathematics courses required to place into career cluster courses. Students use pretest data from a college placement test of the Virginia College & Career Mathematics Proficiencies to identify and work on individual gaps in skills and concepts. Students are post-tested in order for students, parents, and teachers to know potential college course placement and to target next skills. College and Career Navigation, including field experiences, is included.
Credits 0.5
Grades Offered 12
Prerequisites
AFDA or Algebra II with Department Approval+

Trigonometry

Trigonometry will be investigated through the study of trigonometric definitions, applications, graphing, and solving trigonometric equations and inequalities. Emphasis is placed on connections between right triangle ratios, trigonometric functions and circular functions. In addition, modeling and realistic applications are used throughout the course. Students will learn to communicate using the language of mathematics, logic of procedure and interpretation of results. Graphing calculators, computers and other technologies will be used as tools to assist in teaching and learning.
Credits 0.5
Grades Offered 11, 12
Prerequisites
Algebra II

Music

The Music Department course offerings develop music achievement, understanding and interest in the area of music. Choral and instrumental music programs offer a variety of courses in which students may participate.

Students may be expected to participate in summer camps to prepare for performances. Fees may be assessed to cover costs for meals, camp t-shirts and other miscellaneous costs. Specific questions regarding fees should be directed to your child's principal and band/chorus director.

AP Music Theory/History

A minimum of three years of participation in the music program of Frederick County Public Schools or a demonstrated equivalent is required to enroll in this course. This course is an independent study of music. It includes writing, ear training, analysis of music, introduction to keyboard and a survey of music history. This course provides preparation for college fine arts requirements. See Guidelines for Placement of Students in Honors/ AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Teacher Recommendation and Demonstrated Musical Background

Chamber Ensemble

This will be a small ensemble of students who have the highest levels of musicianship in the choral department. These students are able to perform in venues where a large ensemble might not be able to perform. These students act as ambassadors for Frederick County at local, state, national and international choral performances. Performance at all concerts presented by this ensemble is required.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Audition or Teacher Recommendation

Chamber Ensemble

This will be a small ensemble of students who have the highest levels of musicianship in the choral department. These students are able to perform in venues where a large ensemble might not be able to perform. These students act as ambassadors for Frederick County at local, state, national and international choral performances. Performance at all concerts presented by this ensemble is required.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Audition or Teacher Recommendation

Color Guard

Membership in this course is by audition only and provides the opportunity to perform with the marching band. All students enrolled in this course are members of the marching band. Members are required to attend band camp in August. Students enrolled are required to attend all marching band performances. No credit will be given for Color Guard unless the class meets for 140 hours of instruction for one credit or 70 hours for ½ credit.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Audition

Color Guard

Membership in this course is by audition only and provides the opportunity to perform with the marching band. All students enrolled in this course are members of the marching band. Members are required to attend band camp in August. Students enrolled are required to attend all marching band performances. No credit will be given for Color Guard unless the class meets for 140 hours of instruction for one credit or 70 hours for ½ credit.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Audition

Concert Band I/Marching Band

This is an instrumental ensemble for students who are not selected for Concert Band/Marching Band II. Students enrolled in Concert Band I are expected to follow all requirements of performance, rehearsals and band camp. The Concert Band I will rehearse as an independent instrumental unit and participate in public performances and festivals when the group is ready. Participation in all performances is required. Individual schools will determine marching band schedules and participation requirements.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Prior Instrumental Music Experience

Concert Band II/Marching Band

This is an advanced instrumental music ensemble for students who have completed one year in band or have a teacher's recommendation. Individual schools will determine marching band schedules and participation requirements. All members of band are required to attend and participate in all performances of the marching band and Concert Band II, as well as attend band camp.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Audition

Concert Band III/Marching Band

This is an advanced instrumental music ensemble for students who have completed two years in band or have a teacher's recommendation.. Individual schools will determine marching band schedules and participation requirements. All members of band are required to attend and participate in all performances of the marching band and Concert Band III, as well as attend band camp.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Audition

Concert Choir

This ensemble is a select group of choral musicians who embody the highest levels of achievement in voice and musicianship at the high school level. Membership is by audition only. This group represents locally and nationally the highest level performance of the choral department. Performance in all concerts presented by this ensemble is required.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Audition

Instrumental Ensemble

This course provides an opportunity for students to participate in individual and small ensemble experiences. Students are able to participate in Instrumental Ensemble without being a member of one of the performing bands. As members of this non-performing group, students have the opportunity to learn a second instrument.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Music Teacher Recommendation/Screening

Jazz Ensemble I

This course is a performing ensemble that offers advanced-level students the opportunity to study and perform jazz literature.
Credits 1.0
Grades Offered 9, 10, 11, 12

Jazz Ensemble I

This course is a performing ensemble that offers advanced-level students the opportunity to study and perform jazz literature.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Audition

Jazz Ensemble II

This course is a performing ensemble that offers advanced-level students the opportunity to study and perform jazz literature.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Jazz Ensemble I

Jazz Ensemble II

This course is a performing ensemble that offers advanced-level students the opportunity to study and perform jazz literature.
Credits 0.5
Grades Offered 10, 11, 12
Prerequisites
Jazz Ensemble I

Marching Band

This course is intended to develop students' technique for playing brass, woodwind, and percussion instruments and cover appropriate band literature styles, primarily for marching performances.
Credits 0.5
Grades Offered 9, 10, 11, 12

Mixed Chorus

Mixed Chorus is a preparation course for those students who have no experience in choral music or who need more development in choral singing. Performance in all concerts presented through this course is required.
Credits 1.0
Grades Offered 9, 10, 11, 12

Musical Theatre I

Students will obtain training and skills associated with musical theatre, including singing, acting, and movement and use correct terminology and vocabulary in written and oral discussion.
Credits 1.0
Grades Offered 10, 11, 12

Tenor/Bass Ensemble I

This choir is composed of students with tenor/bass voices who have experience in choral music or who have the abilities to perform in an ensemble at a high level of proficiency. Vocal development and musicianship in the field of choral literature are stressed. Performance in all concerts presented by this ensemble is required.
Credits 1.0
Grades Offered 9, 10, 11, 12

Tenor/Bass Ensemble II

This choir is composed of students with tenor/bass voices who have experience in choral music or who have the abilities to perform in an ensemble at an intermediate level of proficiency. Vocal development and musicianship in the field of choral literature are stressed. Performance in all concerts presented by this ensemble is required.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Tenor/Bass Ensemble I

Tenor/Bass Ensemble III

This choir is composed of students with tenor/bass voices who have experience in choral music or who have the abilities to perform in an ensemble at an advanced level of proficiency. Vocal development and musicianship in the field of choral literature are stressed. Performance in all concerts presented by this ensemble is required.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Tenor/Bass Ensemble II

Treble Ensemble I

This choir is composed of students with treble voices who have experience in choral music or who have the abilities to perform in an ensemble at a high level of proficiency. Vocal development and musicianship in the field of choral literature are stressed. Performance in all concerts presented by this ensemble is required.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Audition or Teacher Recommendation

Treble Ensemble II

This choir is composed of students with treble voices who have experience in choral music or who have the abilities to perform in an ensemble at an intermediate level of proficiency. Vocal development and musicianship in the field of choral literature are stressed. Performance in all concerts presented by this ensemble is required.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Treble Ensemble I

Treble Ensemble III

This choir is composed of students with treble voices who have experience in choral music or who have the abilities to perform in an ensemble at an advanced level of proficiency. Vocal development and musicianship in the field of choral literature are stressed. Performance in all concerts presented by this ensemble is required.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Treble Ensemble II

Other

Mathematics Focus

These courses are designed to provide support for students in the focus areas of reading, mathematics and writing as assessed on the Standards of Learning tests. Students receive additional instruction and review content and concepts in the specific focus area(s) needing further development. A variety of instructional strategies are used to address students' individual needs. Students needing remediation should take Foundations for SOL Success.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Teacher/Administrative placement

Peer Tutoring Elective

The in-school tutoring program is designed to provide students with academic assistance from peer tutors during study halls, before and after school, and regular class periods. Peer tutors receive an overview of the peer tutoring program, participate in an orientation, keep records of tutoring sessions and learn basic information in learning theory. A notation of this service will be placed on the student's cumulative record. Assignment as a peer tutor in the Special Education program will meet the seven credit requirement if peer tutoring occurs during a class period. Placement in the Special Education program requires an application and possible interview.
Credits 0.0
Grades Offered 9, 10, 11, 12
Prerequisites
Eligible students must apply, be interviewed by course instructor and be accepted to participate before enrolling in the course.

Reading/English Focus

These courses are designed to provide support for students in the focus areas of reading, mathematics and writing as assessed on the Standards of Learning tests. Students receive additional instruction and review content and concepts in the specific focus area(s) needing further development. A variety of instructional strategies are used to address students' individual needs. Students needing remediation should take Foundations for SOL Success.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Teacher/Administrative placement

Science Focus

These courses are designed to provide support for students in the focus areas of reading, mathematics and writing as assessed on the Standards of Learning tests. Students receive additional instruction and review content and concepts in the specific focus area(s) needing further development. A variety of instructional strategies are used to address students' individual needs. Students needing remediation should take Foundations for SOL Success.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Teacher/Administrative placement

Social Studies Focus

These courses are designed to provide support for students in the focus areas of reading, mathematics and writing as assessed on the Standards of Learning tests. Students receive additional instruction and review content and concepts in the specific focus area(s) needing further development. A variety of instructional strategies are used to address students' individual needs. Students needing remediation should take Foundations for SOL Success.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Teacher/Administrative placement

Student Office/Department Assistant

This assignment provides selected senior students with an opportunity to participate in community service to the school on a regular basis. Students must apply, be interviewed by their prospective supervisor and be accepted by that supervisor. Areas available for student office/department assistants include: administrative office, guidance office, library, and departmental offices and programs. Students who are office assistants must be enrolled for the full day. Assignment as a student office assistant will meet the seven credit requirement.
Credits 0.0
Grades Offered 12
Prerequisites
Accepted application

Writing Focus

These courses are designed to provide support for students in the focus areas of reading, mathematics and writing as assessed on the Standards of Learning tests. Students receive additional instruction and review content and concepts in the specific focus area(s) needing further development. A variety of instructional strategies are used to address students' individual needs. Students needing remediation should take Foundations for SOL Success.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Teacher/Administrative placement

Science

Standard Diploma	Credits	Advanced Studies Diploma	Credits
Laboratory Sciences	3	**Laboratory Sciences**	3
Students must earn at least 3 science credits that include courses from 2 different science disciplines: Earth Science, Biology, Chemistry, and Physics.		Students must earn at least 4 science credits that include courses from 3 different science discipline: Earth Science, Biology, Chemistry, and Physics	

The goal of the Frederick County Science program is to develop scientific literacy and that all high

school students are able to use and apply scientific knowledge. These courses focus provide students opportunities to explore scientific concepts and explanations of natural phenomena, test those explanations, and communicate their findings both in oral and written forms. Through this process, students develop a deep understanding of science that combines knowledge and facts with reasoning and critical thinking.

Highly motivated students have the option of enrolling in Advanced Placement science courses, and/or dual enrollment science courses. Important theories and applications from the science field and elements of experimental design and data analysis are stressed in all courses. Teachers of any course may require an independent or group project.

Students taking Advanced Placement Biology, Advanced Placement Chemistry and Advanced Placement Physics C, will be required to enroll in topics in Advanced Placement lab courses for ½ credit.

Although the same material is presented in all classes in a given subject area, differences in learning style, achievement in previous science courses, and differing career and educational goals are reflected in the various course offerings.

AP Biology

This course is the equivalent of a college introductory biology course and contains rigorous requirements in terms of the range and depth of topics presented, the kind of laboratory work done by students and the time and effort of students. Students enrolling in this course must also enroll in topics in Advanced Placement Science (4370L). Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes - energy and communication, genetics, information transfer, ecology and interactions. The Advanced Placement course outline is followed, and students are prepared to be successful on the AP exam for possible college credit. If a laboratory investigation includes an animal dissection, an alternative assignment will be provided to students objecting to this activity. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11, 12

Recommended
"A" or "B" average in Both Biology I and Chemistry I
Prerequisites
Biology I, Chemistry I and Algebra II

AP Chemistry: Theory With Applications

AP Chemistry is a second-year course designed for those students who plan to major in a science or related field at the college level. Students enrolling in this course must also enroll in topics in Advanced Placement Science (4470L). The AP course outline is followed and students are prepared to be successful on the Advanced Placement exam for possible college credit. Through inquiry-based learning, students develop critical thinking and reasoning skills. Students cultivate their understanding of chemistry and science practices as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11, 12

Recommended
Physics I and Enrolled in Precalculus
Prerequisites
Chemistry I and Algebra II

AP Environmental Science

This course is the equivalent of a one-semester, introductory college course in environmental science, through which students engage with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. This course requires students to identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Biology I and Chemistry I

AP Physics 1

This is the first year of a two year course sequence designed to cover all of the topics presented in a first year Algebra based college Physics course. Emphasis is placed on mathematical development of concepts; therefore, a stronger mathematics background is required for success. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves and sound. It will also introduce electric circuits. Students demonstrating outstanding achievement in this course will be prepared for the Advanced Placement Physics 1 exam for possible college credit. Co-enrollment in a Topics in Advanced Placement Science course is not required. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11, 12

Recommended
Honors Chemistry I and enrolled in Honors Math Analysis and/or Advanced Algebra/Trig.
Prerequisites
Algebra II

AP Physics 2

This is the second year of a two year course sequence designed to cover all of the topics presented in a first year Algebra based college Physics course. Emphasis is placed on mathematical development of concepts; therefore, a stronger mathematics background is required for success. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; atomic and nuclear physics. Students demonstrating outstanding achievement in this course will be prepared for the Advanced Placement Physics 2 exam for possible college credit. Co-enrollment in a Topics in Advanced Placement Science course is not required. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11, 12

Recommended
Honors Chemistry I and enrolled in Honors Math Analysis and/or Advanced Algebra/Trig.
Prerequisites
Algebra II and Physics I or AP Physics 1

AP Physics C: Theory With Applications

AP Physics is a calculus-based second year course. It provides a strong science foundation for students who are college bound. Students enrolling in this course must also enroll in Topics in Advanced Placement Science (4570L). The Advanced Placement course outline for Physics C, which emphasizes Newtonian mechanics and electricity and magnetism, is followed. Students are prepared to be successful on the AP Physics C examination for possible college credit. See Guidelines for Placement of Students in Honors/ AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 12

Recommended
"C" in Precalculus and "B" in Physics I
Prerequisites
AP Physics 1, Precalculus and enrollment in or completion of Calculus

Biology I: Theory With Applications

Biology I is a laboratory-based course that includes the study of ecology, taxonomy, cellular chemistry, genetics, microbiology, and physiology. These areas are developed within a framework of principal biological theories with an emphasis on critical thinking and science process skills. This course has an associated Standards of Learning (SOL) test. Students will participate in this test to satisfy federal testing requirements.
Credits 1.0
Grades Offered 9, 10, 11

Biology I: Theory With Applications

This is an elective biology course that focuses on body structures and their functions. Topics will include, but may not be limited to, anatomy, functions of the human body, injuries and illnesses. Lab exercises will include dissections and use of microscopes. This course may utilize animal dissection techniques as an instructional strategy. Students who conscientiously object to these exercises will participate in division-approved activities that provide comparable learning experiences. Students will be encouraged to apply to their own lives the updated and timely information presented in this class. There will be no SOL test upon completion of this course. Note: Students will not receive credit for both Biology II: Survey of Human Systems and Anatomy and Physiology.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Biology I and one other science discipline

Chemistry I: Theory With Applications

Chemistry I emphasizes the qualitative and quantitative study of substances and the changes that occur in them. Students will investigate using various lab techniques and apply mathematical and problem-solving skills. A survey of concepts includes atomic structure, chemical bonding, formulas and equations, stoichiometry and other calculations based on molar relationships, phases of matter and the kinetic molecular theory, the acid-base theory, and simple organic chemistry. This course has an associated Standards of Learning (SOL) test. Students will participate in this test only when they have not yet earned verified science credit for graduation.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Biology I, Algebra I

Earth & Space Science I: Theory With Applications

Earth Science I is a laboratory-based course that provides students with an opportunity to explore the various physical phenomena that affect the earth. This course, which encompasses research design concepts, helps students become more aware of their surroundings through the study of astronomy, space science, meteorology, oceanography, physical geology, and environmental resources. This course has an associated Standards of Learning (SOL) test. Students will participate in this test only when they have not yet earned verified science credit for graduation.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Biology I

Environmental Science

This course is an introductory laboratory-based course that provides students with an opportunity to build foundational knowledge in Earth Science and Biology through the lens of environmental literacy and citizenship. This course focuses on both the physical world and the living systems while addressing socio-scientific issues related to humans' impact on the environment, resource conservation, and legal and civic responsibility. This course may be counted toward high school graduation as either an Earth Science I, Biology I, or an elective science discipline credit. The Environmental Science course does not have an associated Standards of Learning (SOL) test.
Credits 1.0
Grades Offered 9, 10

Honors Anatomy & Physiology I

This is a rigorous elective biological science course that consists of a detailed study of the anatomy of the human body and the functions of its systems. The biochemistry of each system is emphasized. Required laboratory applications include in-depth analysis of the various systems. This course may utilize animal dissection techniques as an instructional strategy. Students who conscientiously object to these exercises will participate in division-approved activities that provide comparable learning experiences. This course is designed for students who have an interest in entering a health-related field generally requiring a four-year college degree. Note: Students will not receive credit for both Biology II: Survey of Human Systems and Anatomy and Physiology I. This course is the equivalent of a college anatomy and physiology course. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11, 12

Recommended
"C" or better in Biology I
Prerequisites
Biology I

Honors Anatomy & Physiology II

This course builds upon Anatomy and Physiology I and focuses on the integration of anatomy and physiology of cells, tissues, organs and systems of the human body. Integrates concepts of chemistry, physics and pathology. This course is the equivalent of a college anatomy and physiology course. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Honors Anatomy and Physiology I

Honors Biology I: Theory With Applications

Honors Biology is designed to give students a foundation in biological concepts as well as the opportunity to apply principles of experimental design in laboratory settings and on a required student project. This course presents the same topics taught in Biology I but with extensions to each curriculum objective. This course has an associated Standards of Learning (SOL) test. Students will participate in this test to satisfy federal testing requirements. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.

Credits 1.0
Grades Offered 9, 10, 11, 12

Honors Chemistry I: Theory With Applications

This course is designed to challenge the more advanced students and is taught at an accelerated pace. The content of this course includes the following: matter and energy, atomic structure, bonding, periodic table, mathematics of chemistry, kinetics and equilibrium, acids and bases, redox and electrochemistry, organic chemistry, applications of chemical properties, nuclear chemistry, and laboratory activities. All content objectives are extended and enriched. A strong math background in which the student has acquired competence in formula writing and solving equations is essential for success. This course has an associated Standards of Learning (SOL) test. Students will participate in this test only when they have not yet earned verified science credit for graduation. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.

Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Biology I, Algebra I

Honors Earth & Space Science I: Theory With Applications

Honors Earth & Space Science I is a lab-based course designed to give students a foundation in earth science concepts as well as the opportunity to apply principles of experimental design in laboratory settings and on a required student project.This course includes the study of geology, oceanography, meteorology, astronomy, and space science but with extensions to each curriculum objective. This course has an associated Standards of Learning (SOL) test. Students will participate in this test only when they have not yet earned verified science credit for graduation. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.

Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Biology I

Physics I: Theory With Applications

Physics I is a standard first-year course that covers all topics required by the Virginia Standards of Learning (SOL) for physics. This course is fast-paced, and students are expected to have strong study and mathematical skills. Students will utilize mathematical calculations while applying scientific methodology to investigate Newtonian mechanics; fluids (hydrostatics and hydrodynamics); wave phenomena; electricity and magnetism; thermodynamics; and selected topics in modern physics. Students will be instructed on how to design, conduct, analyze, and interpret data and present results collected from investigations. Written, detailed laboratory reports are required. Students who desire to continue their study of physics upon completion of this course could enroll in AP Physics 1, AP Physics 2, or AP Physics C: Theory with Application.

Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Biology I, Algebra I
Corequisites
Geometry

Topics in Advanced Placement Science: AP Biology

This course supports learner objectives for AP biology and will include important content from that course. Although hands on laboratory investigations are an integral part of this course, direct instruction, student projects, assessments and other activities may also be included. This class will meet for a total of 70 hours of instruction during the school year and grades taken in this class will be combined with those from AP Biology (4430X) and reported for that class. All students enrolling in AP Biology (4370X) must also enroll in this course.
Credits 0.5
Grades Offered 11, 12
Corequisites
AP Biology (4370X)

Topics in Advanced Placement Science: AP Chemistry

This course supports learner objectives for AP Chemistry and will include important content from that course. Although hands on laboratory investigations are an integral part of this course, direct instruction, student projects, assessments and other activities may also be included. This class will meet for a total of 70 hours of instruction during the school year and grades taken in this class will be combined with those from AP Chemistry (4470X) and reported for that class. All students enrolling in AP Chemistry (4470X) must also enroll in this course.
Credits 0.5
Grades Offered 11, 12
Prerequisites
Students must be concurrently enrolled in AP Chemistry (4470X)

Topics in Advanced Placement Science: AP Physics (C)

This course supports learner objectives for AP Physics C and will include important content from that course. Although hands on laboratory investigations are an integral part of this course, direct instruction, student projects, assessments and other activities may also be included. This class will meet for a total of 70 hours of instruction during the school year and grades taken in this class will be combined with those from AP Physics C (4571X) and reported for that class. All students enrolling in AP Physics C (4571X) must also enroll in this course.
Credits 0.5
Grades Offered 11, 12
Prerequisites
Students must be enrolled in AP Physics C (4571X)

Social Studies

Standard Diploma		**Advanced Studies Diploma**	
History/Social Science	4	History/Social Science	4
Students must earn at least 4 social studies credits.		Students must earn at least 4 social studies credits.	

The Social Studies program is designed to give students experiences in a variety of courses meeting their personal interests and fulfilling requirements for graduation. While the nature and subject matter of each course differ, all courses share the common goal of helping students recognize the global and interdependent nature of our world. Courses for skills development are available in World History/Geography, U.S. History and U.S. Government based on need and administrative placement.

AP United States Government

Students will engage in a rigorous and in-depth examination of the American political system and the democratic values that enable citizens to participate effectively in civic and economic life. Students will examine fundamental constitutional principles, the rights and responsibilities of citizenship, the political culture, the policy-making process at local, state and national levels of government, and the operation of the United States market economy. Emphasis will be placed on historical research and writing through the use of primary and secondary sources. Students will continue to use historical and geographical analysis skills to explore the events, people and ideas pertinent to the study of American government. Personal character traits that facilitate thoughtful and effective participation in the civic life an increasingly diverse democratic society will be emphasized throughout the course. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 12

Recommended
AP United States History

AP United States History

Students will engage in a rigorous and in-depth examination of the historical development of American ideas and institutions from the Age of Exploration to the modern era. Knowledge of American culture through a chronological survey of major issues, movements, people, and events in United States and Virginia history will be connected by focusing on political and economic history. Students will use historical and geographical analysis skills to explore the events, people, and ideas that fostered our national identity and led to our country's prominence in world affairs. Emphasis will be placed on research and writing skills through the use of primary and secondary sources and document based questions and essays. Students may earn college credit through the Advanced Placement (AP) United States History exam given at the end of the year. Students may be tested at the end of this course on the Virginia and United States History standards of learning. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11

Recommended
Honors World History and Geography to 1500 C.E.

AP World History: Modern

This course offers an approach that lets students "do history" by guiding them through the steps a historian would take in analyzing historical events and evidence worldwide. It will begin in 1200 CE with students covering civilizations in Africa, the Americas, and Asia and continue into the modern age. The purpose of this course is to develop a greater understanding of the evolution of global processes and contacts in different types of human societies. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Honors World History I

Honors Virginia US Government

Students will explore the American political system and the democratic values that enable citizens to participate effectively in civic and economic life. Students will examine fundamental constitutional principles, the rights and responsibilities of citizenship, the political culture, the policy-making process at local, state, and national levels of government, and the operation of the United States market economy. Students will continue to use social studies skills to explore the events, people and ideas pertinent to the study of the American government. Students will continue to use their historical knowledge and skills to write essays, answer document-based questions, and conduct research. Personal character traits that facilitate thoughtful and effective participation in the civic life of an increasingly diverse democratic society will be emphasized throughout the course. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.

Credits 1.0
Grades Offered 12

Honors Virginia US History

Students will examine the historical development of American ideas and institutions from the age of exploration to the modern era. Basic knowledge of American culture through a chronological survey of major issues, movements, people, and events in the United States and Virginia history will be connected by focusing on political and economic history. Students will use social studies skills to explore the events, people, and ideas that fostered our national identity and led to our country's prominence in world affairs. Students will continue to use their historical knowledge and skills to write essays, answer document-based questions, and conduct research. Students may be tested at the end of this course on the Virginia and United States History standards of learning.
Credits 1.0
Grades Offered 11

Honors World History and Geography 1500 C.E. to Present

Students will examine history and geography from 1500 A.D. (C.E.) to the present, with emphasis on Western Europe. Geographic influences on history will continue to be explored, but increasing attention will be given to political boundaries that developed with the evolution of nations. Significant attention will be given to the ways in which scientific and technological revolutions created new economic conditions that in turn produced social and political changes. Noteworthy people and events of the 19th and 20th centuries will be emphasized for their strong connections to contemporary issues. Students will continue to use their historical knowledge and skills to write essays, answer document based questions and conduct research. Students may be tested at the end of this course on the World History and Geography 1500 C.E. to present standards of learning. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 10

Recommended
Honors World History and Geography to 1500 C.E.

Honors World History and Geography to 1500 C.E.

Students will explore the historical development of people, places and patterns of life from prehistory to ancient civilizations until 1500 A.D. (C.E.). Geographical analysis including the study of human interaction and the environment, cultural characteristics and economic development will be emphasized as students explore people, places and events. Students will engage in historical and chronological thinking through the examination of primary and secondary sources. Students will use their historical knowledge and skills to write essays and answer document based questions. Students will be tested at the end of this course on the World History and Geography to 1500 C.E. standards of learning. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 9, 10

Sociology

This course examines man in his surroundings and how he can adapt to various situations. The course is composed of units on psychology, marriage and the family and general sociology. Class discussions and role playing will comprise a major portion of this course.
Credits 1.0
Grades Offered 11, 12

Virginia and United States Government

Students will explore the American political system and the democratic values that enable citizens to participate effectively in civic and economic life. Students will examine fundamental constitutional principles, the rights and responsibilities of citizenship, the political culture, the policy-making process at local, state and national levels of government, and the operation of the United States market economy. Students will continue to use social studies skills to explore the events, people and ideas pertinent to the study of American government. Personal character traits that facilitate thoughtful and effective participation in the civic life of an increasingly diverse democratic society will be emphasized throughout the course.
Credits 1.0
Grades Offered 12

Virginia and United States Government—Service Learning

Service Learning is designed for students with a special interest in politics and government. During the first semester students explore the American political system and the democratic values that enable citizens to participate effectively in civic and economic life. Students will examine fundamental constitutional principles, the rights and responsibilities of citizenship, the political culture, the policy-making process at local, state and national levels of government, and the operation of the United States market economy. During the second semester, students spend a portion of their class time in local government agencies applying the knowledge and skills they have acquired in the classroom to solving community problems. Selection criteria include teacher recommendations, academic standing, parent permission and a letter of reference from an individual in the community. Selection is made by a committee including the course instructor, principal and guidance counselor. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 12
Prerequisites
Approved student application. Applications may be obtained from a guidance counselor or instructor.

Virginia and United States History

Students will examine the historical development of American ideas and institutions from the age of exploration to the modern era. Basic knowledge of American culture through a chronological survey of major issues, movements, people, and events in United States and Virginia history will be connected by focusing on political and economic history. Students will use social studies skills to explore the events, people, and ideas that fostered our national identity and led to our country's prominence in world affairs. Students may be tested at the end of this course on the Virginia and United States History standards of learning.
Credits 1.0
Grades Offered 11

World Geography

The focus of this course is the study of the world's peoples, places, and environments, with an emphasis on world regions. The knowledge, skills, and perspectives of the course are centered on the world's peoples and their cultural characteristics, landforms and climates, economic development, and migration and settlement patterns. Spatial concepts of geography will be used as a framework for studying interactions between humans and their environments. Using geographic resources, students will employ inquiry, research, and technology skills to ask and answer geographic questions. Particular emphasis will be placed on students understanding and applying geographic concepts and skills to their daily lives.
Credits 1.0
Grades Offered 9

World History and Geography 1500 C.E. to Present

Students will examine history and geography from 1500 A.D. (C.E.) to the present, with emphasis on Western Europe. Geographic influences on history will continue to be explored, but increasing attention will be given to political boundaries that developed with the evolution of nations. Significant attention will be given to the ways in which scientific and technological revolutions created new economic conditions that in turn produced social and political changes. Noteworthy people and events of the 19th and 20th centuries will be emphasized for their strong connections to contemporary issues. Students will engage in historical and chronological thinking through the examination of primary and secondary sources. Students may be tested at the end of this course on the World History and Geography 1500 C.E. to present standards of learning.
Credits 1.0
Grades Offered 10

World History and Geography to 1500 C.E.

Students will explore the historical development of people, places and patterns of life from prehistory to ancient civilizations until 1500 A.D. (C.E.). Geographical analysis including the study of human interaction and the environment, cultural characteristics and economic development will be emphasized as students explore people, places and events. Students will engage in historical and chronological thinking through the examination of primary and secondary sources. Students will be tested at the end of this course on the World History and Geography to 1500 C.E. standards of learning.
Credits 1.0
Grades Offered 9

Special Education

Coursework in this section is designed for students eligible for special education. Courses may be defined by the Standards of Learning, the Aligned Standards of Learning, or may meet elective requirements.

Adapted Phys. Educ - 9

This course is designed to contribute to the development of students in physical activities. Each student has a personalized program of physical activities adapted to match strengths, needs and interests.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Administrative approval or IEP

Adapted Phys. Educ - 10

This course is designed to contribute to the development of students in physical activities. Each student has a personalized program of physical activities adapted to match strengths, needs and interests.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Administrative approval or IEP

Adapted Phys. Educ - 11

This course is designed to contribute to the development of students in physical activities. Each student has a personalized program of physical activities adapted to match strengths, needs and interests.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Administrative approval or IEP

Adapted Phys. Educ - 12

This course is designed to contribute to the development of students in physical activities. Each student has a personalized program of physical activities adapted to match strengths, needs and interests.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
Administrative approval or IEP

Algebra I - Part I

Algebra I and Geometry courses described in this section may be used to meet some of the requirements for the Standard Diploma. The multi-year sequence provides an individualized pace for students according to the time they need to understand algebraic concepts and practice application skills. Students may complete Algebra I or Geometry in one year, three semesters, or two years. Upon completion of the SOL content, students will be tested on the Algebra I or Geometry Standards of Learning. Upon completion of Parts I and II, students with IEPs are eligible to apply for a credit accommodation to receive 2 full math credits for Algebra I or Geometry.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Algebra I - Part II

Algebra I and Geometry courses described in this section may be used to meet some of the requirements for the Standard Diploma. The multi-year sequence provides an individualized pace for students according to the time they need to understand algebraic concepts and practice application skills. Students may complete Algebra I or Geometry in one year, three semesters, or two years. Upon completion of the SOL content, students will be tested on the Algebra I or Geometry Standards of Learning. Upon completion of Parts I and II, students with IEPs are eligible to apply for a credit accommodation to receive 2 full math credits for Algebra I or Geometry.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Compensatory Skills I

Compensatory Skills course is designed to assist students in developing executive skills, study skills, pre-vocational skills such as problem solving and collaboration, and social skills. Students may also receive instructional supports for reading, writing, math, and workplace readiness. Instructional focus will vary based on the student's strengths and weaknesses, IEP goals, and his/her academic and career plan.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Compensatory Skills I

Compensatory Skills course is designed to assist students in developing executive skills, study skills, pre-vocational skills such as problem solving and collaboration, and social skills. Students may also receive instructional supports for reading, writing, math, and workplace readiness. Instructional focus will vary based on the student's strengths and weaknesses, IEP goals, and his/her academic and career plan.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Compensatory Skills II

Compensatory Skills course is designed to assist students in developing executive skills, study skills, pre-vocational skills such as problem solving and collaboration, and social skills. Students may also receive instructional supports for reading, writing, math, and workplace readiness. Instructional focus will vary based on the student's strengths and weaknesses, IEP goals, and his/her academic and career plan.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Compensatory Skills II

Compensatory Skills course is designed to assist students in developing executive skills, study skills, pre-vocational skills such as problem solving and collaboration, and social skills. Students may also receive instructional supports for reading, writing, math, and workplace readiness. Instructional focus will vary based on the student's strengths and weaknesses, IEP goals, and his/her academic and career plan.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Compensatory Skills III

Compensatory Skills course is designed to assist students in developing executive skills, study skills, pre-vocational skills such as problem solving and collaboration, and social skills. Students may also receive instructional supports for reading, writing, math, and workplace readiness. Instructional focus will vary based on the student's strengths and weaknesses, IEP goals, and his/her academic and career plan.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Compensatory Skills III

Compensatory Skills course is designed to assist students in developing executive skills, study skills, pre-vocational skills such as problem solving and collaboration, and social skills. Students may also receive instructional supports for reading, writing, math, and workplace readiness. Instructional focus will vary based on the student's strengths and weaknesses, IEP goals, and his/her academic and career plan.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Compensatory Skills IV

Compensatory Skills course is designed to assist students in developing executive skills, study skills, pre-vocational skills such as problem solving and collaboration, and social skills. Students may also receive instructional supports for reading, writing, math, and workplace readiness. Instructional focus will vary based on the student's strengths and weaknesses, IEP goals, and his/her academic and career plan.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Compensatory Skills IV

Compensatory Skills course is designed to assist students in developing executive skills, study skills, pre-vocational skills such as problem solving and collaboration, and social skills. Students may also receive instructional supports for reading, writing, math, and workplace readiness. Instructional focus will vary based on the student's strengths and weaknesses, IEP goals, and his/her academic and career plan.
Credits 0.5
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Developmental Reading (I–VII)

These courses emphasize reading and spelling skills with a focus on functional sight and community words for students with significant reading deficits. The course will target individual needs and attempt to inspire a love of reading. Students will utilize technology in a variety of settings to access and present information.
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Geometry – Part I

Algebra I and Geometry courses described in this section may be used to meet some of the requirements for the Standard Diploma. The multi-year sequence provides an individualized pace for students according to the time they need to understand algebraic concepts and practice application skills. Students may complete Algebra I or Geometry in one year, three semesters, or two years. Upon completion of the SOL content, students will be tested on the Algebra I or Geometry Standards of Learning. Upon completion of Parts I and II, students with IEPs are eligible to apply for a credit accommodation to receive 2 full math credits for Algebra I or Geometry.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Geometry – Part II

Algebra I and Geometry courses described in this section may be used to meet some of the requirements for the Standard Diploma. The multi-year sequence provides an individualized pace for students according to the time they need to understand algebraic concepts and practice application skills. Students may complete Algebra I or Geometry in one year, three semesters, or two years. Upon completion of the SOL content, students will be tested on the Algebra I or Geometry Standards of Learning. Upon completion of Parts I and II, students with IEPs are eligible to apply for a credit accommodation to receive 2 full math credits for Algebra I or Geometry.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Independent Living Skills I

These courses prepare students for post secondary independent living skills as outlined in the IEP and will be based on the student's strengths and weaknesses. Course work is based on the Applied Studies Curriculum developed by the Virginia Department of Education and may cover such skills in such competency areas as self advocacy, goal setting, personal management, safety and health, social communication, mobility, recreation & leisure, nutrition & food preparation, wellness, and using community services.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Independent Living Skills II

These courses prepare students for post secondary independent living skills as outlined in the IEP and will be based on the student's strengths and weaknesses. Course work is based on the Applied Studies Curriculum developed by the Virginia Department of Education and may cover such skills in such competency areas as self advocacy, goal setting, personal management, safety and health, social communication, mobility, recreation & leisure, nutrition & food preparation, wellness, and using community services.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Independent Living Skills III

These courses prepare students for post secondary independent living skills as outlined in the IEP and will be based on the student's strengths and weaknesses. Course work is based on the Applied Studies Curriculum developed by the Virginia Department of Education and may cover such skills in such competency areas as self advocacy, goal setting, personal management, safety and health, social communication, mobility, recreation & leisure, nutrition & food preparation, wellness, and using community services.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Independent Living Skills IV

These courses prepare students for post secondary independent living skills as outlined in the IEP and will be based on the student's strengths and weaknesses. Course work is based on the Applied Studies Curriculum developed by the Virginia Department of Education and may cover such skills in such competency areas as self advocacy, goal setting, personal management, safety and health, social communication, mobility, recreation & leisure, nutrition & food preparation, wellness, and using community services.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Independent Living Skills V

These courses prepare students for post secondary independent living skills as outlined in the IEP and will be based on the student's strengths and weaknesses. Course work is based on the Applied Studies Curriculum developed by the Virginia Department of Education and may cover such skills in such competency areas as self advocacy, goal setting, personal management, safety and health, social communication, mobility, recreation & leisure, nutrition & food preparation, wellness, and using community services.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Independent Living Skills VI

These courses prepare students for post secondary independent living skills as outlined in the IEP and will be based on the student's strengths and weaknesses. Course work is based on the Applied Studies Curriculum developed by the Virginia Department of Education and may cover such skills in such competency areas as self advocacy, goal setting, personal management, safety and health, social communication, mobility, recreation & leisure, nutrition & food preparation, wellness, and using community services.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Independent Living Skills VII

These courses prepare students for post secondary independent living skills as outlined in the IEP and will be based on the student's strengths and weaknesses. Course work is based on the Applied Studies Curriculum developed by the Virginia Department of Education and may cover such skills in such competency areas as self advocacy, goal setting, personal management, safety and health, social communication, mobility, recreation & leisure, nutrition & food preparation, wellness, and using community services.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Local English Elective I

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. The course focus is reading, writing and vocabulary development. Skill competencies addressed in the course may include to search, comprehend, and use a variety of texts, including job applications, payroll forms, transportation schedules, maps, tables, and drug or food labels. Writing instruction emphasizes both comprehension and formulation of written information to seek postsecondary opportunities including skills related to document creation and various forms of text communication. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Local English Elective II

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. The course focus is reading, writing and vocabulary development. Skill competencies addressed in the course may include to search, comprehend, and use a variety of texts, including job applications, payroll forms, transportation schedules, maps, tables, and drug or food labels. Writing instruction emphasizes both comprehension and formulation of written information to seek postsecondary opportunities including skills related to document creation and various forms of text communication. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.

Grades Offered 9, 10, 11, 12

Prerequisites

IEP

Local English Elective III

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. The course focus is reading, writing and vocabulary development. Skill competencies addressed in the course may include to search, comprehend, and use a variety of texts, including job applications, payroll forms, transportation schedules, maps, tables, and drug or food labels. Writing instruction emphasizes both comprehension and formulation of written information to seek postsecondary opportunities including skills related to document creation and various forms of text communication. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.

Grades Offered 9, 10, 11, 12

Prerequisites

IEP

Local English Elective IV

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. The course focus is reading, writing and vocabulary development. Skill competencies addressed in the course may include to search, comprehend, and use a variety of texts, including job applications, payroll forms, transportation schedules, maps, tables, and drug or food labels. Writing instruction emphasizes both comprehension and formulation of written information to seek postsecondary opportunities including skills related to document creation and various forms of text communication. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.

Grades Offered 9, 10, 11, 12

Prerequisites

IEP

Local English Elective V

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. The course focus is reading, writing and vocabulary development. Skill competencies addressed in the course may include to search, comprehend, and use a variety of texts, including job applications, payroll forms, transportation schedules, maps, tables, and drug or food labels. Writing instruction emphasizes both comprehension and formulation of written information to seek postsecondary opportunities including skills related to document creation and various forms of text communication. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.

Grades Offered 9, 10, 11, 12

Prerequisites

IEP

Local English Elective VI

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. The course focus is reading, writing and vocabulary development. Skill competencies addressed in the course may include to search, comprehend, and use a variety of texts, including job applications, payroll forms, transportation schedules, maps, tables, and drug or food labels. Writing instruction emphasizes both comprehension and formulation of written information to seek postsecondary opportunities including skills related to document creation and various forms of text communication. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Local English Elective VII

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. The course focus is reading, writing and vocabulary development. Skill competencies addressed in the course may include to search, comprehend, and use a variety of texts, including job applications, payroll forms, transportation schedules, maps, tables, and drug or food labels. Writing instruction emphasizes both comprehension and formulation of written information to seek postsecondary opportunities including skills related to document creation and various forms of text communication. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Local History Elective I

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. Helping students develop the knowledge, skills, and values that will enable them to become effective citizens will be the focus. Curriculum incorporates history, geography, civics and economics. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.
Grades Offered 9, 10, 11
Prerequisites
IEP

Local History Elective II

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. Helping students develop the knowledge, skills, and values that will enable them to become effective citizens will be the focus. Curriculum incorporates history, geography, civics and economics. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.
Grades Offered 9, 10, 11
Prerequisites
IEP

Local History Elective III

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. Helping students develop the knowledge, skills, and values that will enable them to become effective citizens will be the focus. Curriculum incorporates history, geography, civics and economics. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.
Grades Offered 9, 10, 11
Prerequisites
IEP

Local Math Elective I

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. These courses will focus on math skills for the real world. Skill competencies addressed in the course may include basic math skills such as numerical operations, decimals, and fractions; geometric concepts; and calculator and computer skills. Students are taught to use a calculator for more complex mathematical operations. The Curriculum Map also includes skills required for personal management tasks such as budgeting and banking; managing a household and independent living; and basic employment math operations, such as measurement and time management. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.

Grades Offered 9, 10, 11, 12

Prerequisites

IEP

Local Math Elective II

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. These courses will focus on math skills for the real world. Skill competencies addressed in the course may include basic math skills such as numerical operations, decimals, and fractions; geometric concepts; and calculator and computer skills. Students are taught to use a calculator for more complex mathematical operations. The Curriculum Map also includes skills required for personal management tasks such as budgeting and banking; managing a household and independent living; and basic employment math operations, such as measurement and time management. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.

Grades Offered 9, 10, 11, 12

Prerequisites

IEP

Local Math Elective III

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. These courses will focus on math skills for the real world. Skill competencies addressed in the course may include basic math skills such as numerical operations, decimals, and fractions; geometric concepts; and calculator and computer skills. Students are taught to use a calculator for more complex mathematical operations. The Curriculum Map also includes skills required for personal management tasks such as budgeting and banking; managing a household and independent living; and basic employment math operations, such as measurement and time management. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.

Grades Offered 9, 10, 11, 12

Prerequisites

IEP

Local Math Elective IV

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. These courses will focus on math skills for the real world. Skill competencies addressed in the course may include basic math skills such as numerical operations, decimals, and fractions; geometric concepts; and calculator and computer skills. Students are taught to use a calculator for more complex mathematical operations. The Curriculum Map also includes skills required for personal management tasks such as budgeting and banking; managing a household and independent living; and basic employment math operations, such as measurement and time management. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.

Grades Offered 9, 10, 11, 12

Prerequisites

IEP

Local Math Elective V

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. These courses will focus on math skills for the real world. Skill competencies addressed in the course may include basic math skills such as numerical operations, decimals, and fractions; geometric concepts; and calculator and computer skills. Students are taught to use a calculator for more complex mathematical operations. The Curriculum Map also includes skills required for personal management tasks such as budgeting and banking; managing a household and independent living; and basic employment math operations, such as measurement and time management. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.

Grades Offered 9, 10, 11, 12

Prerequisites

IEP

Local Math Elective VI

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. These courses will focus on math skills for the real world. Skill competencies addressed in the course may include basic math skills such as numerical operations, decimals, and fractions; geometric concepts; and calculator and computer skills. Students are taught to use a calculator for more complex mathematical operations. The Curriculum Map also includes skills required for personal management tasks such as budgeting and banking; managing a household and independent living; and basic employment math operations, such as measurement and time management. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.

Grades Offered 9, 10, 11, 12

Prerequisites

IEP

Local Math Elective VII

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. These courses will focus on math skills for the real world. Skill competencies addressed in the course may include basic math skills such as numerical operations, decimals, and fractions; geometric concepts; and calculator and computer skills. Students are taught to use a calculator for more complex mathematical operations. The Curriculum Map also includes skills required for personal management tasks such as budgeting and banking; managing a household and independent living; and basic employment math operations, such as measurement and time management. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.

Grades Offered 9, 10, 11, 12

Prerequisites

IEP

Local Science Elective I

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. These courses will focus on the environment and biology and students will learn to apply scientific concepts to everyday experiences. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.

Grades Offered 9, 10, 11

Prerequisites

IEP

Local Science Elective II

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. These courses will focus on the environment and biology and students will learn to apply scientific concepts to everyday experiences. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.
Grades Offered 9, 10, 11
Prerequisites
IEP

Local Science Elective III

These courses focus on skills defined by the Aligned Standards of Learning and the Applied Studies Curriculum developed by the Virginia Department of Education. Coursework is designed to enhance the transition from school to post-secondary life including employment. These courses will focus on the environment and biology and students will learn to apply scientific concepts to everyday experiences. Students enrolled in the course will participate in the Virginia Alternative Assessment Program.
Grades Offered 9, 10, 11
Prerequisites
IEP

Prevocational Skills I

These courses prepare students for the world of work and is based on the Applied Studies Curriculum developed by the Virginia Department of Education. The school setting will be used to teach foundational skills that have a direct relationship with successful employment. These skills include punctuality, following directions, following rules and standards, effective workplace communication and social skills, job readiness skills (following schedules and multi-step directions, working independently, time management). Instruction will vary based on the student's present levels of performance, IEP goals, and post secondary pathways. As students progress through high school and the competencies, the curriculum will include community based instruction and real world experiences.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Prevocational Skills II

These courses prepare students for the world of work and is based on the Applied Studies Curriculum developed by the Virginia Department of Education. The school setting will be used to teach foundational skills that have a direct relationship with successful employment. These skills include punctuality, following directions, following rules and standards, effective workplace communication and social skills, job readiness skills (following schedules and multi-step directions, working independently, time management). Instruction will vary based on the student's present levels of performance, IEP goals, and post secondary pathways. As students progress through high school and the competencies, the curriculum will include community based instruction and real world experiences.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Prevocational Skills III

These courses prepare students for the world of work and is based on the Applied Studies Curriculum developed by the Virginia Department of Education. The school setting will be used to teach foundational skills that have a direct relationship with successful employment. These skills include punctuality, following directions, following rules and standards, effective workplace communication and social skills, job readiness skills (following schedules and multi-step directions, working independently, time management). Instruction will vary based on the student's present levels of performance, IEP goals, and post secondary pathways. As students progress through high school and the competencies, the curriculum will include community based instruction and real world experiences.

Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Prevocational Skills IV

These courses prepare students for the world of work and is based on the Applied Studies Curriculum developed by the Virginia Department of Education. The school setting will be used to teach foundational skills that have a direct relationship with successful employment. These skills include punctuality, following directions, following rules and standards, effective workplace communication and social skills, job readiness skills (following schedules and multi-step directions, working independently, time management). Instruction will vary based on the student's present levels of performance, IEP goals, and post secondary pathways. As students progress through high school and the competencies, the curriculum will include community based instruction and real world experiences.

Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Prevocational Skills V

These courses prepare students for the world of work and is based on the Applied Studies Curriculum developed by the Virginia Department of Education. The school setting will be used to teach foundational skills that have a direct relationship with successful employment. These skills include punctuality, following directions, following rules and standards, effective workplace communication and social skills, job readiness skills (following schedules and multi-step directions, working independently, time management). Instruction will vary based on the student's present levels of performance, IEP goals, and post secondary pathways. As students progress through high school and the competencies, the curriculum will include community based instruction and real world experiences.

Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Prevocational Skills VI

These courses prepare students for the world of work and is based on the Applied Studies Curriculum developed by the Virginia Department of Education. The school setting will be used to teach foundational skills that have a direct relationship with successful employment. These skills include punctuality, following directions, following rules and standards, effective workplace communication and social skills, job readiness skills (following schedules and multi-step directions, working independently, time management). Instruction will vary based on the student's present levels of performance, IEP goals, and post secondary pathways. As students progress through high school and the competencies, the curriculum will include community based instruction and real world experiences.

Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Prevocational Skills VII

These courses prepare students for the world of work and is based on the Applied Studies Curriculum developed by the Virginia Department of Education. The school setting will be used to teach foundational skills that have a direct relationship with successful employment. These skills include punctuality, following directions, following rules and standards, effective workplace communication and social skills, job readiness skills (following schedules and multi-step directions, working independently, time management). Instruction will vary based on the student's present levels of performance, IEP goals, and post secondary pathways. As students progress through high school and the competencies, the curriculum will include community based instruction and real world experiences.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
IEP

Technology Education

Program Description

The Technology Education program assists students in developing an understanding of industry and technology and in discovering and developing individual potential. This program provides students with competencies for occupational readiness that are useful for the future craftsperson, technician, engineer, designer or consumer. It provides a foundation for career preparation at either the secondary or post-secondary level. A lab fee is required for most courses.

The Technology Student Association (TSA) is a co-curricular student-led organization that reinforces the technology curriculum and provides opportunity for competition, travel, leadership and career development.

Work-based Learning

Cooperative Education (Co-op) and Internships are high-quality work-based learning experiences for juniors and seniors that place the student in a workplace environment. This placement allows the student to develop and practice knowledge and skills for a specific career field related to the student's career interests, abilities, and goals. Co-op is a paid work-based learning experience while internships may be paid or unpaid. Co-op and internships are connected to classroom learning and are guided by a formal, written training plan that defines specific academic, technical, and workplace skills to be mastered. Applications may be obtained from a school counselor or a CTE teacher.

On-the-job hours required to earn credit through cooperative education or internship are as follows:
140 hours = .5 credit
280 hours = 1 credit

Job shadowing is a short-term experience available as a part of Career and Technical Education courses through an application process. Juniors and seniors who are currently enrolled in CTE courses or who have completed a coherent sequence of CTE courses are eligible. The application process includes student narrative and teacher recommendation. Students participating in this work-based learning experience are required to complete a reflective exercise.

Credentialing

The High School Industry Credentialing initiative encourages students to work toward a selected industry credential or state license while pursuing a high school diploma. The Virginia Department of Education evaluates on an on-going basis industry credentials against prescribed criteria for graduation requirements for the Standard Diploma (8VAC20-131-50.B) and student-selected verified credit (8VAC20-131-110.C). Credentialing exams are available to any student taking a Career and Technical Education course.

Advanced Engineering Studies

Students will learn the application and design processes of engineering. Students will form engineering teams and create and select a design, models, and presentation that addresses a specific engineering problem. Teams will use communications, graphics, mathematics and community resources to solve problems. Students will work with 3-D CADD design and robotics systems and will have an opportunity to participate in engineering competitions.
Credits 1.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Engineering Explorations I

Advanced Engineering Studies (Co-op/Internship)

Students will learn the application and design processes of engineering. Students will form engineering teams and create and select a design, models, and presentation that addresses a specific engineering problem. Teams will use communications, graphics, mathematics and community resources to solve problems. Students will work with 3-D CADD design and robotics systems and will have an opportunity to participate in engineering competitions.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Engineering Explorations I

Advanced Graphic Design (Graphic Communications)

This course provides experiences related to a wide range of tools and materials used to reproduce information and images. Students develop competencies in message design, composition and assembly, and message transfer and product conversion. Various digital and print output techniques and devices are used to develop concepts into finished products.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Recommended
Grade “C” or better in prerequisite class
Prerequisites
Communication Systems

Advanced Graphic Design (Graphic Communications) (Co-op/Internship)

This course provides experiences related to a wide range of tools and materials used to reproduce information and images. Students develop competencies in message design, composition and assembly, and message transfer and product conversion. Various digital and print output techniques and devices are used to develop concepts into finished products.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Recommended
Grade “C” or better in prerequisite class
Prerequisites
Communication Systems

Animation (Digital Visualization)

This course helps students gain experiences related to computer animation using graphics and design concepts. Students solve problems involving 3-D object manipulation and storyboarding. This course involves texturing/mapping, lighting concepts, and environmental geometry. Students create a variety of animations that reflect real-world applications and are introduced to interactive and 3-D animation software. Production of a portfolio showcasing examples of original student work is included.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Communication Systems or Basic Technical Drawing Design and CADD

Animation (Digital Visualization) (Co-op/Internship)

This course helps students gain experiences related to computer animation using graphics and design concepts. Students solve problems involving 3-D object manipulation and storyboarding. This course involves texturing/mapping, lighting concepts, and environmental geometry. Students create a variety of animations that reflect real-world applications and are introduced to interactive and 3-D animation software. Production of a portfolio showcasing examples of original student work is included.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Communication Systems or Basic Technical Drawing Design and CADD

Architectural Drawing and Design

Students learn the principles of architecture and increase understanding of working drawings and construction techniques learned in the prerequisite course. Experiences include residential and commercial building designs, rendering, model development, and structural details. Students use computer-aided drawing and design (CADD) equipment and established standards or codes to prepare models for presentation. The course is especially beneficial to future architects, interior designers, or home builders. Note: This course may not be taken concurrently with Engineering Drawing/Design and CADD.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Basic Technical Drawing/Design and CADD

Architectural Drawing and Design (Co-op/Internship)

Students learn the principles of architecture and increase understanding of working drawings and construction techniques learned in the prerequisite course. Experiences include residential and commercial building designs, rendering, model development, and structural details. Students use computer-aided drawing and design (CADD) equipment and established standards or codes to prepare models for presentation. The course is especially beneficial to future architects, interior designers, or home builders. Note: This course may not be taken concurrently with Engineering Drawing/Design and CADD.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Basic Technical Drawing/Design and CADD

Electronics Systems I

Electronic devices are everywhere in modern life and business, and, as a result, opportunities abound for any who should master the knowledge and skills required to design, alter, repair, and construct them. This course allows students the opportunity to explore principles of electricity, apply knowledge in mathematics and science, and conduct experiments with electronics. Students solve problems using simple electrical devices and circuits and build electronic projects using DC and AC devices and circuits. This course is the prerequisite for Electronics Technology II.
Credits 1.0
Grades Offered 9, 10, 11, 12

CTE
Yes

Electronics Systems I (Co-op/ Internship)

Electronic devices are everywhere in modern life and business, and, as a result, opportunities abound for any who should master the knowledge and skills required to design, alter, repair, and construct them. This course allows students the opportunity to explore principles of electricity, apply knowledge in mathematics and science, and conduct experiments with electronics. Students solve problems using simple electrical devices and circuits and build electronic projects using DC and AC devices and circuits. This course is the prerequisite for Electronics Technology II.
Credits 2.0
Grades Offered 11, 12

CTE
Yes

Electronics Systems II

Students work with electronics devices, instruments, and circuits, building and designing devices to apply theories and laws with electronic components such as resistors, capacitors, and transistors. They also study integrated circuits used in computers, amplifiers, television, and other equipment. This course is recommended for students seeking postsecondary education in a technical field.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Prerequisites
Electronics Systems I

Electronics Systems II (Co-op/ Internship)

Students work with electronics devices, instruments, and circuits, building and designing devices to apply theories and laws with electronic components such as resistors, capacitors, and transistors. They also study integrated circuits used in computers, amplifiers, television, and other equipment. This course is recommended for students seeking postsecondary education in a technical field.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Electronics Systems I

Engineering Explorations I

In Engineering Explorations, students examine technology and engineering fundamentals in relation to solving real-world problems. Students investigate engineering history, including major engineering achievements, and they examine the principle engineering specialty fields and their related careers. Students practice engineering fundamentals, using mathematical and scientific concepts, and they apply the engineering design process through participation in hands-on engineering projects. Students communicate project-related information through team-based presentations, proposals, models, prototypes, and technical reports.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes

Engineering Explorations I (Co-op/Internship)

In Engineering Explorations, students examine technology and engineering fundamentals in relation to solving real-world problems. Students investigate engineering history, including major engineering achievements, and they examine the principle engineering specialty fields and their related careers. Students practice engineering fundamentals, using mathematical and scientific concepts, and they apply the engineering design process through participation in hands-on engineering projects. Students communicate project-related information through team-based presentations, proposals, models, prototypes, and technical reports.
Credits 2.0
Grades Offered 11, 12

CTE
Yes

Introduction to Graphic Design (Communication Systems)

This graphic technology course introduces students to the world of visual communications where they receive an overview of materials, tools and techniques used in different career opportunities. Students will explore the history of communication systems, computer and visual literacy, video production, typography, color theory and workplace readiness skills. This course will also introduce basic animation along with digital photography, and students will use industry standard design software.
Credits 1.0
Grades Offered 9, 10, 11, 12

CTE
Yes

Manufacturing Systems I

This course provides an orientation to careers in various fields of manufacturing. Emphasis will be placed on the major systems in automated manufacturing, including design, electrical, mechanical, manufacturing processes, material handling, and quality control. Students participate in teams to produce manufacturing projects that demonstrate critical elements of manufacturing.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes

Manufacturing Systems II

Students develop an in-depth understanding of automation and its applications to manufacturing. Students will use computers and interactive multimedia modules to design, engineer and produce products, control robots and program computer controlled machines. Activities center on flexible manufacturing processes, product quality assurance, applied electrical controls, mechanical drive systems, fluid power, and Computer Integrated Manufacturing (CIM) in the management and control of the manufacturing process. Students will learn to program and use a carbon laser to produce, refine, or engrave a project.
Credits 1.0
Grades Offered 11, 12

CTE
Yes
Recommended
Any Technical Drawing Class
Prerequisites
Manufacturing Systems I

Manufacturing Systems II (Co-op/Internship)

Students develop an in-depth understanding of automation and its applications to manufacturing. Students will use computers and interactive multimedia modules to design, engineer and produce products, control robots and program computer controlled machines. Activities center on flexible manufacturing processes, product quality assurance, applied electrical controls, mechanical drive systems, fluid power, and Computer Integrated Manufacturing (CIM) in the management and control of the manufacturing process. Students will learn to program and use a carbon laser to produce, refine, or engrave a project.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Recommended
Any Technical Drawing Class
Prerequisites
Manufacturing Systems I

Materials and Processes Technology

Students focus on physical materials and processes as they fabricate usable products and conduct experiments. Learning experiences include career analysis as well as the use of tools and equipment related to analysis, testing, and processing of metals, plastics, woods, ceramics, and 3 composite materials. This single-period lab course is recommended for students interested in technical careers and others wishing to improve their technological literacy.
Credits 1.0
Grades Offered 9, 10, 11

CTE
Yes

Photography (Imaging Technology)

Students in this level-two course apply the principles of design in the creation of images. Students explore the development of imaging as a communication medium and its evolution into the digital realm. Image-editing software allows students to enhance images and develop a portfolio. Investigation focuses on career exploration and the application of photographic and imaging technology across various industries.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes
Recommended
Grade “C” or better in prerequisite class
Prerequisites
Communication Systems

Photography (Imaging Technology) (Co-op/Internship)

Students in this level-two course apply the principles of design in the creation of images. Students explore the development of imaging as a communication medium and its evolution into the digital realm. Image-editing software allows students to enhance images and develop a portfolio. Investigation focuses on career exploration and the application of photographic and imaging technology across various industries.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Recommended
Grade "C" or better in prerequisite class
Prerequisites
Communication Systems

Technical Drawing and Design

In this foundation course, students learn the basic language of technical drawing and design, and they design, sketch, and make technical drawings, models, or prototypes of real design problems. The course is especially recommended for future engineering and architecture students.
Credits 1.0
Grades Offered 9, 10, 11, 12

CTE
Yes

Trade and Industrial

Program Description

Trade and Industrial Education (T&I) covers a variety of specialized areas including automotive technology, auto body repair, and building trades. Currently all Trade and Industrial courses are taught at Dowell J. Howard Center. Trade and Industrial programs are designed to give students training and experience in technical areas that cannot be supported in the comprehensive high schools because of specialized equipment requirements. Application for admittance and lab fees are required for all Trade and Industrial courses at Dowell J. Howard.

Skills USA is the student organization that serves Trade and Industrial students at Dowell J. Howard Center providing opportunities for competition, travel, leadership and career development.

Work-based Learning

Cooperative Education (Co-op) is a paid high quality work-based learning experience that connects CTE classroom instruction and practical work experience. The work experience relates directly to the student's interests, abilities, and goals as well as the CTE course in which the student is enrolled. Co-op combines a rigorous and relevant curriculum with an occupational specialty. Students participating in co-op are guided by a formal, written training plan that defines specific academic and workplace skills to be mastered. Applications may be obtained from a school counselor or a CTE teacher.

On-the-job hours required to earn credit through internship or cooperative education are as follows:
140 hours = .5 credit
280 hours = 1 credit

Credentialing

The High School Industry Credentialing initiative encourages students to work toward a selected industry credential or state license while pursuing a high school diploma. The Virginia Department of Education evaluates on an on-going basis industry credentials against prescribed criteria for graduation requirements for the Standard Diploma (8VAC20-131-50.B) and student-selected verified credit (8VAC20-131-110.C). Credentialing exams are available to any student taking a Career and Technical Education course.

An application is required for admission to the Dowell J. Howard courses.

Apprenticeship

Students who register as an apprentice with the Virginia Department of Industry and Labor in Grades 11 or 12 and continue employment throughout the school year are eligible to earn an elective credit in Apprenticeship.
Credits 1.0
Grades Offered 11, 12

CTE
Yes

Auto Body Technology I

In the global automobile collision repair industry, there is a growing demand for qualified auto body technicians. In this course, students are taught damage analysis, estimating, customer service, non-structural analysis, damage repair, and welding. Students work with a variety of materials, using metal finishing and body filling techniques to prepare surfaces and repair panels. Students who successfully complete this program sequence may be eligible to take an industry recognized certification exam. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. Auto Body Technology I is closely aligned with the 2022 ASE Education Foundation Collision Repair and Refinish program standards.
Credits 2.0
Grades Offered 10, 11, 12

CTE
Yes

Auto Body Technology II

In the global automobile collision repair industry, there is a growing demand for qualified auto body technicians. In this course, students are taught painting and refinishing techniques that include surface preparation, spray gun and related equipment operation, paint mixing, matching, and applying, and final vehicle detailing. Students who successfully complete this program sequence may be eligible to take an industry recognized certification exam. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) may provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations. Auto Body Technology II is aligned with the 2022 ASE Education Foundation collision repair and refinish program standards.
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Auto Body Technology I

Auto Body Technology II (Co-op/ Internship)

In the global automobile collision repair industry, there is a growing demand for qualified auto body technicians. In this course, students are taught painting and refinishing techniques that include surface preparation, spray gun and related equipment operation, paint mixing, matching, and applying, and final vehicle detailing. Students who successfully complete this program sequence may be eligible to take an industry recognized certification exam. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) may provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations. Auto Body Technology II is aligned with the 2022 ASE Education Foundation collision repair and refinish program standards.

Credits 3.0

Grades Offered 11, 12

CTE

Yes

Prerequisites

Auto Body Technology I

Auto Body Technology III

In the global automobile collision repair industry, there is a growing demand for qualified auto body technicians. This course allows students to apply knowledge and skills learned in Auto Body Technology I and II and may also be used as a capstone course in which students may perfect their auto body skills to move toward employment in the industry. Students who successfully complete this program will be prepared to take an industry recognized certification examination and will be prepared for postsecondary education opportunities. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations. Auto Body Technology III is aligned with the 2022 Automotive Service Excellence (ASE) Education Foundation collision repair and refinish program standards.

Credits 2.0

Grades Offered 12

CTE

Yes

Prerequisites

Auto Body Technology II

Auto Body Technology III (Co-op/ Internship)

In the global automobile collision repair industry, there is a growing demand for qualified auto body technicians. This course allows students to apply knowledge and skills learned in Auto Body Technology I and II and may also be used as a capstone course in which students may perfect their auto body skills to move toward employment in the industry. Students who successfully complete this program will be prepared to take an industry recognized certification examination and will be prepared for postsecondary education opportunities. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations. Auto Body Technology III is aligned with the 2022 Automotive Service Excellence (ASE) Education Foundation collision repair and refinish program standards.
Credits 3.0
Grades Offered 12

CTE
Yes
Prerequisites
Auto Body Technology II

Automotive Technology I

In this course, students explore, handle, and perform basic functions in engine repair, automatic transmission and transaxle, manual drive train and axles, suspension and steering systems, and brakes. Students who successfully complete the Automotive Technology program may be eligible to take the Automotive Service Excellence (ASE) Student Certification examination. The ASE Student Certification is the first step in building a career as a service professional in the automotive industry. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. Automotive Technology I and II are closely aligned with the 2017 ASE Education Foundation automobile program standards for Maintenance and Light Repair (MLR).
Credits 2.0
Grades Offered 10, 11, 12

CTE
Yes

Automotive Technology II

Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Automotive Technology I

Automotive Technology II (Co-op/Internship)

In this course, students build upon their basic knowledge of automotive technology, exploring more advanced tasks in engine repair, automatic transmission and transaxle, manual drive train and axles, suspension and steering systems, and brakes. They also learn about electrical, electronic, and HVAC systems in automobiles. Upon successful completion of the course, students may be eligible to take the Automotive Service Excellence (ASE) Student Certification examination. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations. Automotive Technology I and II are closely aligned with the 2017 ASE Education Foundation automobile program standards for Maintenance and Light Repair (MLR).

Credits 3.0

Grades Offered 11, 12

CTE

Yes

Prerequisites

Automotive Technology I

Automotive Technology III

This course prepares students to perform automotive diagnosis and repairs in the following areas: engine repair, cooling systems, transmission and transaxle, manual drive trains and axles, suspension and steering, wheel and tire, brakes, electrical/electronic systems, HVAC, and engine performance. Students are provided with more advanced instruction in all systems as they prepare for the Automotive Service Excellence (ASE) certification examinations. The Automotive Technology program provides the fundamental skills necessary to succeed in an ever-changing and challenging industry as an automotive technician. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations. This course is closely aligned with the 2017 ASE Education Foundation automobile program standards for Maintenance and Light Repair (MLR). For every task in this course, the following safety requirement must be strictly enforced: Comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

Credits 2.0

Grades Offered 12

CTE

Yes

Prerequisites

Automotive Technology II

Automotive Technology III (Co-op/Internship)

This course prepares students to perform automotive diagnosis and repairs in the following areas: engine repair, cooling systems, transmission and transaxle, manual drive trains and axles, suspension and steering, wheel and tire, brakes, electrical/electronic systems, HVAC, and engine performance. Students are provided with more advanced instruction in all systems as they prepare for the Automotive Service Excellence (ASE) certification examinations. The Automotive Technology program provides the fundamental skills necessary to succeed in an ever-changing and challenging industry as an automotive technician. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations. This course is closely aligned with the 2017 ASE Education Foundation automobile program standards for Maintenance and Light Repair (MLR). For every task in this course, the following safety requirement must be strictly enforced: Comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.
Credits 3.0
Grades Offered 12

CTE
Yes
Prerequisites
Automotive Technology II

Carpentry I

Carpentry I is foundational for achieving high-level construction industry skills that can result in an exciting and lucrative career. With an emphasis on safety, students are taught to use hand and power tools, cut stock, apply construction mathematics, interpret blueprints, and understand basic rigging. Students will become proficient in identifying types of residential construction components to frame walls, floors, ceilings, roofs, doors, and windows. All students will obtain the required Construction Industry OSHA 10 safety credential. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills.
Credits 2.0
Grades Offered 10, 11, 12

CTE
Yes

Carpentry II

Carpentry II prepares students for successful transition into postsecondary education for careers in carpentry and related fields, such as construction management, architecture, and others. Students are taught the safe use of hand and power tools common to the industry to complement their Construction Industry OSHA 10 safety credential earned in Carpentry I. Students will become proficient in assembling and installing various types of residential construction components according to industry standards, including forming foundations, framing floors, walls, ceiling, roofs, trusses, roofing materials, stairs, and exterior doors and windows. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Credits 2.0

Grades Offered 11, 12

CTE

Yes

Prerequisites

Carpentry I

Carpentry II (Co-op/Internship)

Carpentry II prepares students for successful transition into postsecondary education for careers in carpentry and related fields, such as construction management, architecture, and others. Students are taught the safe use of hand and power tools common to the industry to complement their Construction Industry OSHA 10 safety credential earned in Carpentry I. Students will become proficient in assembling and installing various types of residential construction components according to industry standards, including forming foundations, framing floors, walls, ceiling, roofs, trusses, roofing materials, stairs, and exterior doors and windows. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Credits 3.0

Grades Offered 11, 12

CTE

Yes

Prerequisites

Carpentry I

Criminal Justice I

Students are introduced to law, public safety, corrections, and security practices. Students examine contemporary issues in the criminal justice system and explore crime scene investigation, criminal investigation, court procedures, policing, and juvenile justice. This course provides a foundation for careers as lawyers, as forensics specialists, and as law enforcement and corrections officers. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.
Credits 1.0
Grades Offered 10, 11, 12

CTE
Yes

Criminal Justice I (Co-op/ Internship)

Students are introduced to law, public safety, corrections, and security practices. Students examine contemporary issues in the criminal justice system and explore crime scene investigation, criminal investigation, court procedures, policing, and juvenile justice. This course provides a foundation for careers as lawyers, as forensics specialists, and as law enforcement and corrections officers. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.
Credits 2.0
Grades Offered 10, 11, 12

CTE
Yes

Criminal Justice II

Students apply knowledge learned in Criminal Justice I through practical scenarios involving crime scene investigation, criminal investigation, and crisis intervention. Students explore trends in correctional standards and in identifying and preventing terror threats. This course prepares students for careers as lawyers, forensics
Credits 2.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Criminal Justice I

Criminal Justice II (Co-op/ Internship)

Students apply knowledge learned in Criminal Justice I through practical scenarios involving crime scene investigation, criminal investigation, and crisis intervention. Students explore trends in correctional standards and in identifying and preventing terror threats. This course prepares students for careers as lawyers, forensics
Credits 3.0
Grades Offered 11, 12

CTE
Yes
Prerequisites
Criminal Justice I

Visual Arts

The Visual Arts Department offers a wide variety of courses from introductory to advanced levels. Visual arts courses prepare students for further study in such fields as commercial art and art education. All courses incorporate an overview of major artists and movements as well as exposure to multicultural influences. Courses benefit college-bound students who will be required to take an art appreciation course as part of their core curriculum. Any art course can contribute to students' awareness of their environment and provide them with a foundation on which to develop future artistic endeavors long after their formal education has been completed.

3D Art

This course is designed for students to explore a variety of three-dimensional media and techniques. Projects produced will demonstrate appropriate use of the elements of art and principles of design. A high degree of craftsmanship is emphasized. The students will maintain a journal/sketchbook from which ideas and designs will be developed. The influences of artists from contemporary and historical time periods will be explored.

Credits 1.0

Grades Offered 10, 11, 12

Prerequisites

Art I

AP Studio Art

This course provides students who anticipate studying art at the postsecondary level the rigor and focus of a college level visual art course. Students enrolled in AP Studio Art will choose a 2-D, Drawing, or Sculpture concentration. A portfolio will be compiled throughout the school year demonstrating competency in the chosen concentration, depth of artistic expression, and breadth of artistic experience. The portfolio is sent to the AP Board for review with the potential for earned college credit. Students will expand on artistic concepts and themes in their personal work and will be required to create artist statements in which they articulate and defend artistic choices in their work. A fee is charged for consumable materials.

Credits 1.0

Grades Offered 12

Prerequisites

Successful completion of at least two art courses, one of which must be an advanced level art course (Art III or Art IV)

Art I

This course is an introductory visual art course designed to introduce students to a variety of media and processes. Students will learn, apply, and analyze the Elements of Art and the Principles of Design in their own art making and the art of others. Both two and three dimensional art processes including drawing, painting, printmaking, sculpture, and ceramics will be introduced. Students will explore art in both historical and contemporary contexts and participate in critical analysis of work of different artists, cultures, and time periods. Students will maintain a portfolio to demonstrate artistic progress which will carry on to the next level of study. There is no prerequisite. Upon successful completion of this course, students may advance to Art II. A fee is charged for consumable materials. Students in the gifted art program may apply to skip Art I with a required portfolio review and teacher recommendation.

Credits 1.0

Grades Offered 9, 10, 11, 12

Art II

This second level course is designed to expand on and refine two and three dimensional processes learned in the previous course. Students will continue to maintain a portfolio in which artistic progress can be shown. Students will continue to examine art as a means for personal expression as well as its historical and societal impact. Students will explore content, concepts, and big ideas in their own original works of art. A C or better in the previous course or teacher approval is required. A fee is charged for consumable materials.

Credits 1.0

Grades Offered 9, 10, 11, 12

Art III - Advanced Intermediate

This course continues to emphasize the acquisition of concepts and development of skills as well as enable students to organize and analyze visual arts content. Students increasingly focus on art history, critical evaluation, and aesthetics as well as creative problem solving. Study at this level affords students the opportunity to develop personal directions in the production of their works of art or to further their academic study in the visual arts. Students add works of art and other products to their portfolios to take to the next level of study.
Credits 1.0
Grades Offered 10, 11, 12

Recommended
Grade "C" or better in prerequisite class
Prerequisites
Art I and Art II or Portfolio Submission for approval

Art IV: Advanced

This advanced level course helps students reinforce competence and confidence in skills of analysis, evaluation, and creation of works of art. Content and concepts associated with art criticism and aesthetics are central to the refinement of art production skills. The student-directed approach at this level richly enhances personal expressive abilities. An advanced level of performance that reflects critical and independent thinking and innovation is expected. Students continue to maintain process art portfolios. The culminating portfolio must show evidence of quality, concentration, and breadth of work produced throughout the high school art program.
Credits 1.0
Grades Offered 11, 12

Recommended
Grade "C" or better in prerequisite class
Prerequisites
Successful completion of at least two art courses, including Art III - Advanced Intermediate

World Language

AP French V

Advanced Placement French students are expected to understand spoken French in various contexts; develop a French vocabulary for reading newspaper and magazine articles, literary texts, and other non-technical writings without dependence on a dictionary; and express themselves coherently, resourcefully, and with reasonable fluency and accuracy in both written and spoken French. Extensive training in the organization and writing of compositions is an integral part of this course. Preparation for the SAT II and the Advanced Placement French Language Test is provided. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 12
Prerequisites
French IV

AP Latin

By studying Caesar's Commentaries on the Gallic War and Vergil's Aeneid, Advanced Placement Latin students are expected to translate accurately from Latin into English the poetry or prose they are reading and to demonstrate a grasp of the grammatical structures and vocabulary. Since the appreciation of Latin literature requires an understanding of the literary techniques of Latin writers and of poetic meters where appropriate, stylistic analysis is an integral part of the advanced work in this course. AP Latin also includes a study of the cultural, social and political context of the literature. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 12

AP Spanish V

Advanced Placement Spanish students are expected to understand spoken Spanish in various contexts; develop a Spanish vocabulary for reading newspaper and magazine articles, literary texts, and other non-technical writings without dependence on a dictionary; and express themselves coherently, resourcefully, and with reasonable fluency and accuracy in both written and spoken Spanish. Extensive training in the organization and writing of compositions is an integral part of this course. Preparation for the SAT II and the Advanced Placement Spanish Language Test is provided. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 12
Prerequisites
Spanish IV

French I

Students begin their study of French by developing listening, speaking, reading and writing skills and experiencing the culture of francophone countries through simulated cultural activities and events. Technology will be used to enhance student learning of French through projects and activities.
Credits 1.0
Grades Offered 9, 10, 11, 12

French II

French II provides unique opportunities to experience the francophone cultures in a language spoken in over 40 countries of the world. Students continue to develop both oral and written communication skills using authentic materials such as ads, maps, magazines and newspapers. Students communicate in the past, present and future tenses. Technology will be used to enhance student learning of French through projects and activities.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
French I

French III

Students express opinions and preferences through more advanced use of vocabulary in real-life situations. Students expand their use of the target language using four language skills: listening, speaking, reading and writing. Topics pertaining to clothing, food, art, music and leisure activities will be discussed. Students will experience the joie de vivre of francophone cultures through authentic materials such as music CDs, videos, magazines, newspaper articles, poems and cultural events. Technology will be used to enhance student learning of French through projects and activities.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
French II

Honors French IV

French IV is an advanced proficiency course in the four skills of listening, speaking, reading and writing that provides students with current and relevant vocabulary within the context of modern France and its history. This course focuses on grammatical and structural stumbling stones encountered by students of French. Authentic literary and technical 20th century readings are presented. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11, 12
Prerequisites
French III

Honors Spanish IV

Spanish IV is an advanced proficiency course to refine both oral and written communication skills with current and relevant vocabulary presented within the context of Spanish-speaking countries. This course focuses on grammatical and structural stumbling blocks encountered by the student of Spanish. Authentic literary readings are presented. Technology will be used to enhance student learning of Spanish through projects and activities. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 11, 12
Prerequisites
Spanish III

Latin I

Students receive an introduction to the study of Latin. They learn basic vocabulary, grammar, noun declensions, and verb conjugations. Students translate basic sentences and paragraphs from a variety of sources. Roman culture, history, and Greek and Roman mythology are also studied in a variety of formats.
Credits 1.0
Grades Offered 9, 10, 11, 12

Latin II

Students continue the study of Latin and build on the content from Latin I. They continue to add vocabulary and more grammatical constructions. They continue to study verb conjugations and learn the passive voice. Second year sentences, and translations from a variety of sources are used. Students continue the study of Roman culture, history, and Greek and Roman mythology.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Latin I

Latin III

Students study more advanced Latin constructions and grammar, and learn the subjunctive mood and its uses for all verb conjugations. They continue with more advanced vocabulary, and translations from authentic Roman writers as well as a variety of sources are studied. They continue learning Roman culture, history, and mythology through the translated stories, and in other formats. See Guidelines for Placement of Students in Honors/AP/Dual Enrolled Classes.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Latin II

Spanish I

Students begin to learn the second most spoken language in the United States. Students develop listening, speaking, reading and writing skills and experience the culture of Hispanic countries through simulated cultural activities and events. Technology will be used to enhance student learning of Spanish through projects and activities.
Credits 1.0
Grades Offered 9, 10, 11, 12

Spanish II

Spanish II provides students with unique opportunities to experience the Hispanic culture with the use of a language spoken by more than 500 million people in the world. Students continue to develop both oral and written communication skills using authentic materials such as ads, maps, magazines and newspapers. Students communicate in the present, past and future tenses. Technology will be used to enhance student learning of Spanish through projects and activities.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Spanish I

Spanish III

Students express opinions and preferences through more advanced uses of vocabulary in real-life situations. Students expand their use of the target language using the four language skills: speaking, listening, reading and writing. Topics pertaining to clothing, food, art, music and leisure activities will be discussed. Students will experience the passion of the Hispanic culture through authentic materials such as music CDs, videos, magazines, newspaper articles, poems and cultural events. Technology will be used to enhance student learning of Spanish through projects and activities.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Spanish II

Spanish for Fluent Speakers I

Fluent speakers of Spanish who have had little previous formal study of the Spanish language will develop the fundamentals of all four language skills: speaking, listening, reading and writing. This level focuses heavily on the interpretive skills of reading and listening. Additionally, students will present information, concepts, and ideas to an audience of listeners and readers on a variety of topics in Spanish. Students will gain knowledge and understanding of the relationship among practices, products, and perspectives of Spanish-speaking cultures. Readings and writing activities will be used to teach literary analysis similar to that of an English course.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Proficiency Testing

Spanish for Fluent Speakers II

Fluent speakers of Spanish who have had some previous formal study of the Spanish language will develop the fundamentals of all four language skills: speaking, listening, reading and writing. This level focuses heavily on the interpersonal skills of language use. Students will present information, concepts, and ideas to an audience of listeners and readers on a variety of topics in Spanish. Students will gain knowledge and understanding of the relationship among practices, products, and perspectives of Spanish-speaking cultures. Readings and writing activities will be used to teach literary analysis similar to that of an English course.
Credits 1.0
Grades Offered 9, 10, 11, 12
Prerequisites
Spanish for Heritage Speakers I or proficiency testing

Spanish for Fluent Speakers III

Fluent speakers of Spanish who have taken the previous levels of Spanish for Fluent Speakers I and II will continue to develop the fundamentals of all four language skills: speaking, listening, reading and writing. This level focuses heavily on developing presentational speaking and writing in the language. Students will present information, concepts, and ideas to an audience of listeners and readers on a variety of topics in Spanish. Students will gain knowledge and understanding of the relationship among practices, products, and perspectives of Spanish-speaking cultures. Readings and writing activities will be used to teach literary analysis similar to that of an English course.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Spanish for Heritage Speakers II or proficiency testing

Spanish for Health Professions I

This full year course will have students apply the Spanish language to learn medical terminology, common health profession protocols and understand cultural mores surrounding healthcare. Students have an opportunity to earn an interpreter's certification to use in a health care setting.
Credits 1.0
Grades Offered 10, 11, 12
Prerequisites
Spanish II

Spanish for Health Professions I

This semester course will have students apply the Spanish language to learn medical terminology, common health profession protocols and understand cultural mores surrounding healthcare. Students have an opportunity to earn an interpreter's certification to use in a health care setting.
Credits 0.5
Grades Offered 10, 11, 12
Prerequisites
Spanish II

Notice of Non-discrimination

In compliance with the Executive Order 11246; Title II of the Education Amendments of 1976; Title VI of the Civil Rights Act of 1972; Title IX Regulation Implementing Education Amendments of 1972; Section 504 of the Rehabilitation Act of 1973; and all other Federal and State laws and school policies and regulations, Frederick County Public Schools shall not discriminate on the basis of race, color, ethnic or national **origin, ancestry, religion, sex, sexual orientation, gender, gender identity, age, political affiliation, disability, military status, marital status, pregnancy,** childbirth or related medical conditions, genetic information or any other characteristic protected by law in the education program and activities, or employment and provides equal access to the Boy Scouts and other designated youth groups.

It is the intent of Frederick County Public Schools to comply with both the letter and spirit of the law in making certain that discrimination does not exist in its policies, regulations, and operations. Grievance procedures, for Title IX and Section 504, have been established for students, their parents, and employees who feel discrimination has been shown by the school division.

All students attending Frederick County Public Schools may participate in education programs and activities, including but not limited to health & physical education, music, career 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, ethnic or national origin, ancestry, religion, sex, sexual **orientation, gender, gender identity, age, political affiliation, disability, military status, marital status, pregnancy, childbirth or related medical** conditions, genetic information or any other characteristic protected by law in the education program and activities.

Questions concerning the application of Title IX and Section 504 may referred to either the FCPS Title IX Coordinator or to the Office of Civil Rights or both:

FCPS Title IX Coordinator—
Adult Matters
Executive Director of Human Resources
1415 Amherst Street
Winchester, VA 22601
Ph: (540) 662-3888
TitleIXCoordinator@fcpsk12.net

FCPS Title IX Coordinator—
Student Matters
Section 504 Coordinator
Director of Student Support Services
1415 Amherst Street
Winchester, VA 22601
Ph: (540) 662-3888
TitleIXCoordinator@fcpsk12.net

Office of Civil Rights
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202
Ph: (202) 453-6020
OCR.DC@ed.gov

To report violations of Title IX, please immediately contact either FCPS Title IX Coordinator at the above email address or phone number. See Frederick County Public School Policies 429P and 506P for details for both the Title IX and compliance grievance processes.

This benefit guide is meant to cover the major points of each plan or policy. This is neither an insurance contract nor a Summary Plan Description and only the actual policy provisions will prevail. All information in this booklet including premiums quoted is subject to change. All policy descriptions are for information purposes only. Your actual policies may be different than those in this booklet. **Frederick County Public Schools reserves the right to terminate, suspend, withdraw, amend, or modify the benefit plans in whole, or in** part, at any time. Further, Frederick County Public Schools reserves the right to terminate or modify coverage at any time.