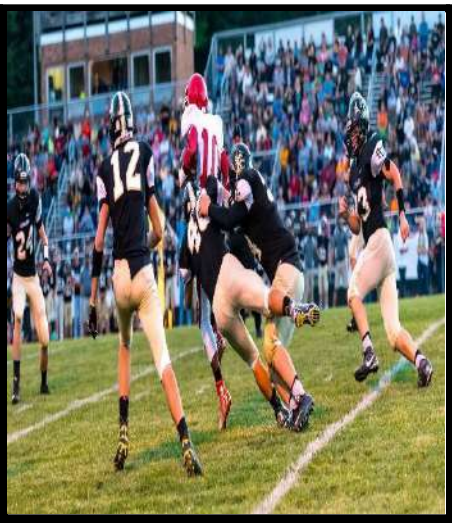
Floyd County Public Schools

The Trail Maps for a Floyd County Graduate



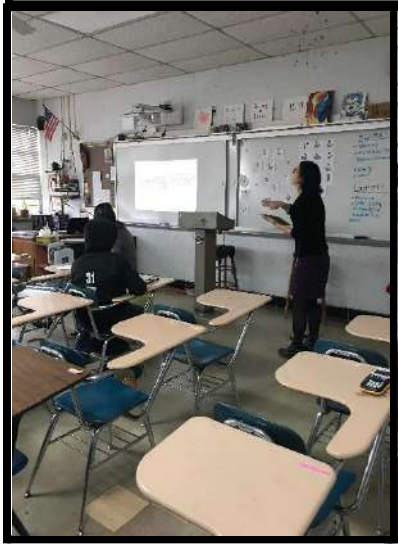


Table of Contents




Introduction

Mission

The educators of Floyd County Public Schools are committed to excellence in education, equality of educational opportunity, and the recognition of each student's individuality.

Vision

Floyd County Public Schools will focus on early childhood education by reinforcing our efforts so we identify the underserved population and increase services.

Floyd County Public Schools will increase the instructional resources and professional development to ensure we are providing high engagement and student self-monitoring activities which are focused on project based learning and literacy as well as internship opportunities for upper high school grades.

Floyd County Public Schools will establish and sustain a One Voice emphasis creating an instructional and physical environment that allows students to feel safe and allows for the forming of relationships that lets students know they are cared for and that our staff wants them to succeed.

Floyd County Public Schools will increase the educational experiences by focusing on areas where we may be underserving our students as well as a focus on local, state, and global job skills necessary to develop college and career ready citizens.

Developing Your Educational Plan

A fundamental goal of the Floyd County School District is to assist all students in developing their abilities and interests. The educational program is comprehensive and offers preparation for both students who plan to continue their formal education beyond high school and who plan to enter directly into the world of work. Among the most important decisions students make are those related to the programs they will pursue. These decisions should be made after careful assessment of students' capabilities and interests and with the assistance of parents, school counselors, and teachers. By focusing on our mission, to prepare all students to excel in a dynamic global society, the school division carefully plans for the future of each student. This planning begins in elementary school, continues throughout middle school, and culminates in our students' preparation for a successful life in our ever-changing world.

Course Availability

All courses are available to students who have met the stated prerequisites. Occasionally, a particular course will not be available due to an insufficient number of students desiring the course or a scheduling conflict. If a student selects one or more of these courses, an alternate class must be chosen. While every effort is made to resolve conflicts, in certain situations, students may need to consider alternative choices. The school will attempt to contact students and parents when this becomes necessary.

Statement of Non-Discrimination

Floyd County Public Schools does not discriminate on the basis of race, color, ethnicity, age, religion, national origin, sexual orientation, gender identity, sex, marital status, or disability. All students have equal access to the courses and programs contained within this guide.

Schools and Pathways

What is a Pathway Program of Study?
It is an interconnection of academic and elective classes revolving around a career or subject theme. It is integrated with work-based learning and close connections between secondary and postsecondary education, training, and apprenticeship.

The program is designed to support the development of career and life readiness for the learner, so that the individual can successfully enter and advance in a career path.

Why is Floyd County moving to a Pathways Model?

- College and completion increases
- High school graduation rate increases
- Rigorous course-taking increases
- Students make more intentional career choices
- Social-emotional learning leads to cognitive gains
- Integration of CTE and Academics leads to achievement gains
- Students experience increased earnings

Will this program model limit options - steering students away from college?
No! We are hoping more students will enroll in college, but with a more purposeful approach.

Are we asking 15 year-olds to get locked into a career decision?
No, we are equipping ALL students to make better decisions.

For each career pathway, you will see a summary of that cluster along with information about projected job growth, certifications/credentials earned, student organizations, and post-secondary options at New River Community College and a sampling of what is offered at 4 year state colleges/universities.

Each career pathway offers a variety of different certifications or credentials. A credential/certification as defined by the Virginia Department of Education:

- State-Issued Professional License, required for entry into a specific occupation as determined by a Virginia state licensing agency;
- Full Industry Certification, from a recognized industry, trade, or professional association validating essential skills of a particular occupation
- Pathway Industry Certification, which may consist of entry-level exams as a component of a suite of exams in an industry certification program leading toward full certification (Automotive Service Excellence, (ASE), Microsoft Office Specialist (MOS); or
- Occupational competency assessment, a national standardized assessment of skills/knowledge in a specific career and/or technical area, (NOCTI).





Agriculture

FUTURE CAREERS

(Projections based on Regional Statistics. Numbers show a percent increase in job openings through 2026)

- Farmworkers, Farm, Ranch, and Aquacultural Animals- 25%
- Hazardous Materials Removal Workers- 7%
- Refuse and Recyclable Material Collectors- 11%
- Landscaping, Lawn Service, and Grounds keeping- 11%
- Industrial Truck and Tractor Operators- 5%
- Chemical Technicians- 5%
- Recreation Workers- 7%
- Veterinarians- 26%
- Veterinary Assistants- 26%
- Butchers and Meat Cutters- 10%

Student Organizations

- FFA

Summary of Pathway

Do you have a love of science, environment, and/or animals? Learners who pursue Animal Science will be prepared for careers that involve improving the quality and safety of food, cultivating and preserving our natural resources, and caring for animals. Learners need a solid background in math, science, communications, and technical skills.

The Plant Science pathway encourages students to study the production of plants while developing an understanding of one of the largest employment sectors. Learners will receive hands on instruction in floral design and in greenhouse managements. The major focus of the pathway is to expose students to the world of agriculture, plant science, and career options.

Courses offered at Floyd County High School:

Agriscience (8th grade)
Introduction to Animal Sciences
Applied Agricultural Concepts
Horticulture
Floriculture
Landscaping

Certifications Earned

Private Pesticide Applicator Certification
Workplace Readiness Skills

Post-Secondary Options at Virginia Western Community College

Associates of Sciences in Agriculture

Certificate in Turf Management - Virginia Tech

Sample Post-Secondary Options at a 4-year University Agricultural Science Major; Pre-Veterinary Science Medicine Major; Wildlife Conservation; Marine Biology; Landscaping

Manufacturing/ Transportation, Distribution, & Logistics

FUTURE CAREERS

(Projections based on Regional Statistics. Numbers show a percent increase in job openings through 2026)

- Industrial Machinery Mechanics- 8%
- Machinists- 2%
- Welders, Cutters, and Solderers - 3%
- Automotive Body and Related Repairers- 11%
- Bus and Truck Mechanics and Diesel Engine Specialists- 10%
- Cleaners of Vehicles and Equipment- 10%
- Logisticians- 12%
- Billing and Posting Clerks- 14%
- Bus Drivers, Transit and Intercity- 12%
- Taxi Drivers and Chauffeurs- 11%
- Light Truck or Delivery Services Drivers- 6%
- Laborers and Freight Movers- 6%

Student Organizations

- American Welding Society
- Skills USA
- Hot Rod Club

Summary of Pathway

Are you ready to help prepare our Nation's aging infrastructures like bridges, buildings, and highways? Or are you ready to manage and move everything from people to products through a range of transportation? Learners will learn a range of skills to help prepare them in Manufacturing for production planning, production design, maintenance, and engineering. Learners will learn logistics in for all modes of transportation from the road to the air. Both of the fields will continue to be in demand as older workers retire, although statistics only show a 1% growth increase.

Courses Offered at Floyd County High School:

Automotive Technology I Automotive Technology II
Junior Welding Welding I and II

Certifications Earned

Automotive Service Excellence Student Examinations
American Welding Society Code D 1.1 Qualified Welder
Level I SENSE Certification
SIX SIGMA Yellow Belt Certification

Post-Secondary Options at New River Community College

Associate of Applied Science Technical Studies: Machine Technology; Instrumentation and Control Automation Technology
Automotive Analysis and Repair *Diploma*
Certificate: Industrial Maintenance; Welding Technology

Sample Post-Secondary Options at a 4-year University

**Automotive and Manufacturing Industries do not require a Bachelor's degree.

Architecture and Construction

FUTURE CAREERS

(Projections based on Regional Statistics. Numbers show a percent increase in job openings through 2026)

- Construction Managers - 5%
- Cost Estimators - 3%
- Civil Engineers- 10%
- Carpenters - 2%
- Electricians - 2%
- Construction Laborers- 5%
- Operating Engineers and Equipment Operators- 5%
- Maintenance and Repair Workers- 7%
- Heating, Air Conditioning, and Refrigeration Mechanics and Installers - 6%
- Construction and Building Inspectors - 7%
- Software Developers- 15%
- Architectural Managers- 6%

Student Organizations

- SKILLS USA

Summary of Pathway

Do you want to design, build, or manage the structures where we live, work, and play? This includes highways, bridges, houses, and buildings. You might create the designs or plans for new structures. Or, you might use the plans to build it or manage the workers on the project. Learners who pursue this career pathway will help prepare the next generation of construction trades workforce and architects. This area is projected to grow by 4%, but this is an area of growing need. Students with this training will be in high demand for entry level positions.

Courses Offered at Floyd County High School

Building Trades I Building Trades II

Certifications Earned

OSHA 10 - Occupational Safety & Health Administration 10 Hour Card

Carpentry Entry Level I Certification

Post-Secondary Options at Community College

Associate of Science: Engineering: Engineering Construction *Virginia Western Community College*

Career Studies: Electricity; Electrical-Construction Technology;

Construction Technology; Refrigeration and Air Conditioning. *New River Community College*

Career Studies Certificate: Air Conditioning and Refrigeration; HVAC;

Electrical Wiring *Virginia Western Community College*

Sample Post-Secondary Options at a 4-year University

Bachelor of Fine Arts: Architectural Design

Bachelor of Science: Architecture

Bachelor of Urban and Environmental Planning

**Construction Trades do not require a 4 year Bachelor's Degree

Business Technology

FUTURE CAREERS

(Projections based on Regional Statistics. Numbers show a percent increase in job openings through 2026)

- Customer Service Representatives- 17%
- Interviewers, Except Eligibility and Loan- 14%
- Receptionists and Information Clerks- 16%
- Computer Information System Managers- 12%
- Database Administrator 19%
- Social and Community Service Managers- 20%
- Public Relations Specialists- 18%
- Management Analysts- 22%
- Loan Officers- 14%
- Financial Managers- 20%
- Billing and Posting Clerk- 14%

Summary of Pathway

Do you want to be a CEO or CFO? Want to run an organization? This pathway is a wide field that incorporates many types of management positions. From major corporations to independent businesses, every operation needs skilled administrators in order to succeed. Students will learn how to be motivated, organized personalities that will thrive in business, where environments are often high-powered. Learning how to deal with stress will help you keep your cool—and keep your business in the black. This area is expected to grow by 6% in Business Management and Administration and by 8% in Finance. Courses that help to prepare you for this pathway include all business courses, along with marketing courses.

Courses Offered at Floyd County High School:

Principles of Business and Marketing
Business Management Accounting I and II
Computer Information System Digital Applications (8th grade)

Student Organizations

- FBLA

Certifications Earned

Basic Accounting
Workplace Readiness
Microsoft Office Suite, Powerpoint, Word and Excel

Post-Secondary Options at New River Community College

Associates of Art and Science: Business Administration

Associate of Applied Science: Accounting; Business Management

Certificate: Accounting; Word Processing

Sample Post-Secondary Options at a 4-year University

• Bachelor of Science in Commerce: Accounting; BusinessFinance • Bachelor of Business Administration: Finance; Financial Economics; Political Economy

Education and Teaching Human Services

FUTURE CAREERS

(Projections based on Regional Statistics. Numbers show a percent increase in job openings through 2026)

- Fitness Trainers and Aerobics Instructors- 18%
- Education Administrators- 10%
- Educational, Guidance, School Counselors- 16%
- Special Education Teachers, Secondary- 10%
- Clinical, Counseling, and School Psychologists- 16%
- Substance Abuse and Behavioral Disorder Counselor- 38%
- Social Workers- 22%
- Social and Human Service Assistants- 22%
- Mental Health Counselor- 28%
- School Teacher- 10%

Student Organizations

- FCCLA

Summary of Pathway

Do you want to make a difference? Learners who purse the Education and Training/Human Services pathway will be involved in classes to prepare the next generation to make a difference. This family of classes and practical experiences prepares students for the art of teaching, planning and administration in schools, colleges, technical institutes and businesses. This pathway can also prepare students for self/personal care. The jobs in the area of Education and Training are expected to grow by 11% and Human Services by 37%. Courses in Family and Consumer Science will help to prepare you for this pathway. Students also have the opportunity to apply to Teachers for Tomorrow.

Courses Offered at Floyd County High School:

Career Strategies

Family and Consumer Sciences (8th grade)

Certifications Earned

Workplace Readiness

Post-Secondary Options at New River Community College

Associates *of Arts and Sciences:* Education

Associates of Applied Sciences: Early Childhood Development; Human Services

Certificate: Early Childhood Development; General Education Certificate

Career Studies Certificate: Early Childhood Development; Child Development Infant and Toddler;

Sample Post-Secondary Options at a 4-year University

Bachelor of Science in Education

Bachelor of Science in Psychology

*In order to become an elementary teacher in Virginia

you must earn a bachelor's degree with a major in education in conjunction with a teacher preparation program, complete an elementary student teaching experience, post passing scores on the state teacher certification exams for Elementary Education, and participate in a mentorship program.

** To become a high school teacher in Virginia, you must earn a bachelor's degree in the subject you want to teach as well as complete an approved teacher preparation program. You must also participate in student teaching and a mentoring program, and pass the state tests for educators.

Hospitality & Tourism, Marketing

FUTURE CAREERS

(Projections based on Regional Statistics. Numbers show a percent increase in job openings through 2026)

- First-Line Supervisors of Housekeeping and Janitorial Workers- 11%
- Amusement and Recreation Attendants- 14%
- Food Service Managers- 10%
- Chefs and Head Cooks- 13%
- Cooks, Institution and Cafeteria- 16%
- Food Preparation Workers- 11%
- Combined Food Preparation and Servicing Worker- 17%
- Hosts and Hostesses- 8%
- Waiters and Waitresses- 8%
- Cooks, Restaurant- 13%

Student Organizations

- FCCLA
- SKILLS USA

Summary of Pathway

Do you like people? The hospitality and tourism/marketing industry is a fast-paced, active setting that includes restaurants, retail environments, hotels, and others. Floyd County and the New River Valley has hundreds of businesses that employ people in these industries. It's one of the top career fields in our area and is expected to grow by 11% in 2026. The average entry-level salary in hospitality management is $40,109 and there are typically many opportunities for advancement in the field. Classes that prepare you for a career in this field include marketing, family and consumer sciences, business management, along with a Culinary program.

Courses Offered at Floyd County High School

Intro to Culinary Arts
Life Planning
Culinary I and II
Nutrition and Wellness

Certifications Earned

National Restaurant Association ServeSafe Manager's Certifications

Post-Secondary Options at Virginia Western

Associates of Arts and Sciences: Culinary Arts; Baking Specialization *Applied Sciences*: Culinary Arts; Baking Specialization *Career Studies Certificate*: Baking & Pastry;

Sample Post-Secondary Options at a 4-year University

Bachelor of Business Administration: Marketing , Business Administration • Bachelor of Science: Hospitality Management , Tourism and Events, Management,

Health and Medical Sciences

FUTURE CAREERS

(Projections based on Regional Statistics. Numbers show a percent increase in job openings through 2026)

- Medical and Clinical Laboratory Technologists- 20%
- Medical Records and Health Information Technicians- 19%
- Medical Secretaries- 27%
- Medical and Health Services Managers- 25%
- Phlebotomists- 26%
- Dentists- 22%
- Family and General Practitioners- 22%
- Physicians and Surgeons- 22%
- Physical Therapists- 25%
- Nurse Practitioners- 39%
- Dental Hygienists- 23%
- Physical Therapy Assistant- 32%

Student Organizations

- HOSA

Summary of Pathway

Do you want to make a difference by helping people or animals? The health science field provides many challenging educational and training opportunities within the high-skilled world of Health Science. Learners need a solid background in math, science, communications, and technical skills. Students have the opportunity to have on-the-job instruction in a licensed nursing home. This area is projected to grow 17% by 2026. Classes that can help you in this field are science, math, psychology, and technology classes.

Courses Available at Floyd County High School:

Nurse Aide I and II Sports Medicine I and II
Introduction to Health and Medical
DE Medical Terminology

Certifications Earned

Certified Nurse Aide Examination
NASM-CPT exam

Post-Secondary Options at New River Community College

Associate of Applied Sciences: Nursing, Medical Administrative Support Specialization
Certificates: Practical Nursin

Sample Post-Secondary Options at a 4-year University

Bachelor of Sciences: Nursing, Biology, Occupational Therapy Assistant, Physical Therapist Assistant, Respiratory Therapy

Information Technology & STEM

FUTURE CAREERS

(Projections based on Regional Statistics. Numbers show a percent increase in job openings through 2026)

- Industrial Engineers- 9%
- Electrical Engineers- 6%
- Database Administrators- 19%
- Computer Network Support Specialists- 13%
- Computer Systems Analysts- 12%
- Software Developers, Applications- 31%
- Software Developers, Systems Software- 15%
- Computer User Supports Specialists- 10%
- Architectural and Engineering Managers- 6%
- Mechanical Engineers- 6%

Summary of Pathway

Do you like to work behind the scenes? Information Technology (IT) careers involve the design, development, support and management of hardware, software, multimedia and systems integration services. The IT industry is a dynamic and entrepreneurial working environment that has a revolutionary impact on the economy and society. This area is projected to grow by 14% by 2026. Do you like to problem solve? Learners who pursue engineering will be involved in planning and providing scientific research and technical services including laboratory and testing services, and research and development services. Engineers will improve and update product designs and to optimize their manufacturing processes. Also, additional engineers and technologists will be needed to improve or build new roads, bridges, water and pollution control systems, and other public facilities. Employment of engineers is projected to grow 7% from 2014 to 2024.

Courses Offered at Floyd County High School

Robotics I
Robotics II
Technical Drawing
Architectural Drawing
Engineering Drawing

Student Organizations

- SKILLS USA
- National Technical Honor Society

Certifications Earned

Microsoft Office Specialist Word; Microsoft Office Specialist PowerPoint; Microsoft Office Specialist Excel; AutoCAD; NOCTI

Post-Secondary Options at New River Community College

Transfer Degrees- Engineering- Computer Science Specialization; General Studies- Computer Science Specialization
Associate of Applied Sciences: Information System Technology - Information Technology- Cyber Security Specialization
Career Studies Certificates: Cybersecurity; Digital Design; Information Technology Foundations; Visual Communication Design

Sample Post-Secondary Options at a 4-year University

• Bachelor of Business Administration: Computer Information Systems
• Bachelor of Science: Information Systems, Aerospace Engineering Major, Civil and Environmental Engineering Major, Computer Engineering Major, Engineering and Mechanics, Computer Science

Computer Sciences

FUTURE CAREERS

(Projections based on Regional Statistics. Numbers show a percent increase in job openings through 2026)

- Industrial Engineers- 9%
- Electrical Engineers- 6%
- Database Administrators- 19%
- Computer Network Support Specialists- 13%
- Computer Systems Analysts- 12%
- Software Developers, Applications- 31%
- Software Developers, Systems Software- 15%
- Computer User Supports Specialists- 10%
- Architectural and Engineering Managers- 6%
- Mechanical Engineers- 6%

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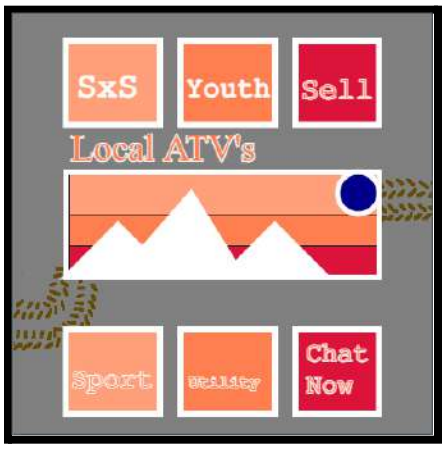
Student Organizations

- SKILLS USA
- National Technical Honor Society



Example of assignment

Courses Offered at Floyd County High School

Computer Science Foundations (Middle School)
Computer Science
Computer Science Principles
Computer Science Programming

Certifications Earned

Microsoft Office Specialist Word; Microsoft Office Specialist PowerPoint; Microsoft Office Specialist Excel; AutoCAD; NOCTI

Post-Secondary Options at New River Community College

Transfer Degrees- Engineering- Computer Science Specialization; General Studies- Computer Science Specialization
Associate of Applied Sciences: Information System Technology - Information Technology- Cyber Security Specialization
Career Studies Certificates: Cybersecurity; Digital Design; Information Technology Foundations; Visual Communication Design

Sample Post-Secondary Options at a 4-year University

• Bachelor of Business Administration: Computer Information Systems
• Bachelor of Science: Information Systems, Aerospace Engineering Major, Civil and Environmental Engineering Major, Computer Engineering Major, Engineering and Mechanics, Computer Science

Note Regarding Course Selection

Algebra I is offered to eighth grade students for high school unit credit. ***Course descriptions may be reviewed in the high school section of this guide.*** This course fulfills high school requirements and counts as a unit of credit toward high school graduation. A verified unit of credit for Algebra I can be earned toward high school graduation by passing the course and passing the Standards of Learning End-Of-Course test. Grades earned count in the computation of the high school grade point average and class rank. Students are encouraged to take challenging course work while in middle school. Based on state board of education policy, **a student who completes a high school course while in eighth grade may have the credit and grade removed from the student's permanent record.** This procedure is recommended if the student has not shown strong academic performance and needs to take the course again to gain mastery of the content.

Students enrolled in a high school credit courses (Algebra) will receive information about the policy and procedures. All requests to remove the high school credit and grade must be in writing and completed by the deadline indicated on the letter.

8th Grade Course Descriptions

Core Classes

English 8 **Course #1120**

In eighth grade, students continue to build upon skills previously learned in earlier grades. There is a continued emphasis on reading comprehension by comparing fiction and nonfiction texts. In fiction texts, students will explain the development of theme(s), and compare/contrast authors' styles. In eighth grade, there will be an increased emphasis on nonfiction reading, and students will analyze authors' qualifications, point-of-view, and style. The student will continue the study of word origins, roots, connotations, and denotations. The student will also plan, draft, revise, and edit while writing in a variety of forms by creating expository and persuasive writing. Students will compose a thesis statement and communicate a position with reasons and evidence. Students will evaluate, analyze, develop, and produce media messages. Students will collaborate with peers to create multimodal presentations that include different points-of-view, and collaborate with others to exchange ideas, make decisions, and solve problems. The student will use critical thinking skills to apply research techniques to analyze information gathered from diverse sources by identifying misconceptions and possible bias. Students will also cite primary and secondary sources using MLA style sheet. As in earlier grades, the meaning and consequences of plagiarism will be stressed. English 8 students will take the Virginia Standards of Learning tests in Reading and Writing.

Algebra I **Course #3130**

Students will study topics in Algebra including data relationships, graphing, order of operations, operations on integers, properties of mathematics, functions, relations, modeling and solving equations, inequalities, percent, linear equations, slope, rate of change, and direct and indirect variations. Students will explore various topics in creative outlets and using critical thinking skills. Emphasis will be placed upon citizenship and communication through collaboration. This is a one-semester course and students will take the Algebra I SOL test upon completion. In order to enroll in the one semester Algebra I course, students should have passed Math 8 with at least a "B" average, placement based on multiple sets of math data since third grade and approval of the teacher. Algebra students will take the Algebra SOL.

Math 8 **Course #31121**

Students in this 45 minute class will extend their study of algebra and geometry-preparatory concepts and skills; creative thinking strategies will be utilized for collecting, analyzing, and interpreting data; and number concepts and skills especially proportional reasoning. Reasoning, problem solving, communication, collaboration, concept representation, and connections among mathematical ideas are emphasized in a hands-on learning environment.

Students will demonstrate citizenship in all areas of learning and instruction and will collaborate in project based learning opportunities. This course provides students the opportunity to acquire critical and creative thinking skills necessary for success in Algebra 1 and beyond. Students enrolled in this class will take the Math 8 SOL.

Physical Science 8 Course #4125

Physical Science 8 is a survey course focusing on two major science areas physics and chemistry. Each area is divided into smaller units in which students will use both critical thinking skills and creative thinking to gain insights into the study of matter and energy. Students will collaborate with other students to plan and conduct investigations using the scientific method and communicate their results in their lab reports

Modern World History Course #2995

Through the study of world geography, culture and history, 8th grade students are introduced to the upcoming topics and themes for the high school career. Using collaborative projects, students are given expansive opportunities to express themselves through unique projects and communicate their learning on a very personal level. By discussing and researching widely different cultural topics, students are encouraged to communicate questions that lead to a deeper critical understanding of their study. By learning about world cultures, students will gain a "citizenship" level appreciation for diversity and the positive differences in societies.

Health &PE 8 Course #7200

The purpose of Health and PE 8 is to expose students to the concepts of wellness, proper mental health, team sports, and individual lifetime fitness activities. All students will be asked to maintain a year-long fitness log which includes not only completed activities but ongoing goals. This fitness log will include collaboration and communication between the students, teacher, and parent/guardian. Students will be asked to develop good citizenship skills through various activities that benefit individuals in our school and community. Each student is also asked to use their creative and critical thinking skills to introduce new games and fitness skills at appropriate times during the school year.

Eighth Grade Electives

Beginning Chorus **Course #9260**

Chorus emphasizes fundamental vocal development, traditional notation, and ensemble singing. These topics require performance, creativity, and investigation at a rudimentary level. Opportunities are provided for student exploration of ways in which the content of other arts and disciplines are related to music. Students taking chorus for multiple semesters will steadily improve proficiency in ensemble singing and in individual performance. These students are eligible to audition for special ensembles, including The Madrigal Singers, a Broadway musical district chorus, state chorus and Honors Choir.

Family and Consumer Sciences Course # 8244

Family and Consumer Sciences Exploratory III is an advanced-level course that prepares middle school students for their roles in families, careers, and communities. Students think critically about the following topics – nutrition and wellness, food preparation, relationships, personal environments, textiles, fashion and apparel, consumer resources, child development and care, and community citizenship – and apply concepts to real-life scenarios through creative problem solving. Instruction in this course collaborates with science, technology, engineering and mathematics (STEM) concepts, where appropriate, through project-based instruction.

Agriscience and Technology **Course #8004**

Through laboratory activities, students apply scientific principles to the field of agriculture, including plants, animals, ag mechanics, and ecology/conservation. The course also includes introductions to woodworking and welding concepts through shop participation. Class projects are used in developing creative thinking and career ready skills. Students will be introduced to "Learning by Doing" through Future Farmers of America and exploratory Supervised Agricultural Experience (SAE) projects.

Digital Applications **Course #6617**

This course is designed for students to develop real-life, outcome-driven approach skills for digital citizenship, basic computer operations, keyboarding, application software (word processing, spreadsheets, multimedia applications, databases), and career exploration. This course promotes skills that can be applied across the curriculum and offers preparation relevant to 21st century skills and postsecondary education. Student skills may be enhanced by participation in work-based learning activities and/or the Future Business Leaders of America (FBLA). Upon successful completion of this course, students will receive one high school credit.

Computer Science (Middle School) Course # 10012

The core practices of computer science, including collaboration, communication, and fostering an inclusive culture, describe the behaviors and ways of thinking that computationally literate students use to fully engage in today's data-rich and interconnected world. Collaborative computing is the process of performing a computational task by working in pairs and on teams, including working with individuals with diverse perspectives, skills, and personalities. Students will need to solicit and incorporate the feedback of others, which can lead to better outcomes than working independently. Students should use collaborative tools to effectively work together and to create complex artifacts. In computer science, students communicate with diverse audiences about the use and effects of computation and the appropriateness of computational choices.

Middle School Career Exploration Course # 9826

The goal of this course is to promote essential skills and knowledge students need to develop a positive self-concept. This course will provide students with opportunities to identify interests, abilities, aptitudes, values, and personality traits as they relate to career planning, to develop a keen understanding of the value and benefit of work, and to differentiate between jobs and careers. In this course, middle school students will experience a variety of activities that promote self-awareness, self-management skills, leadership, teamwork, career exploration, and educational planning related to students' future educational and career plans. At the conclusion of this course, students will be able to analyze personal characteristics and apply these characteristics in the career planning process.

Introduction to Technology **Course # 8483**

Students study technological resources through problem-solving processes and various hands-on activities. They relate the impact of society, environment, and culture to future consequences and decisions.

Beginning Theater **Course #1410**

This class will give practical experience on stage in a comfortable and non-threatening environment, developing the community of theater and its traditions. Developing methods of responding to thoughtfully to theatrical performances and productions focuses on proper communication techniques with emphasis on constructive criticism.

Beginning Band- Marching Band **Course #9234**

(Combines Advanced and Beginner Marching Band)
The "Pride of Floyd County High School" Marching Band is one of the most visible groups in the school. Students who are involved with the marching band will be exposed to a variety of activities, public performances in a variety of town events, competitions, community support throughout football game performances, and concerts to celebrate the holidays. The extensive schedule, which is classified as a co-curricular, because of the many activities outside of the school day, begins with a mandatory band camp in mid-July and extends through a final holiday concert in December. Attendance at all performances is required. Strong emphasis is placed on character development for students as they represent the high school. Opportunity is provided for a portion of the students to engage in leadership activities where they explore a variety of critical and creative thinking exercises as they are exposed to real life problem solving within the microcosm of a student group.

Concert Band **Course #9214**

(Combines Advanced and Beginning Concert Band)
Concert Band is offered in the second semester and is open to students who have interest in instrumental music. There is a class requirement of participation in two concerts during the semester (March/May). During this class students will learn the principles of intonation, breathing

Concert Band Cont.

and listening while performing in a wind band ensemble. Students will be exposed to a variety of literature ranging from traditional to contemporary. Peer, as well as group, evaluation will provide students with exposure to the area of critical thinking. Collaboration between all participating students is an expected form of learning in this environment. Students will be exposed to the purpose of music in society, whether it be for a civic service such as Veterans or Memorial Day programs, or as celebration of a given holiday. The art of communication will be explored as students have the opportunity to present a variety of topics to their peers in class performances as both individuals and small ensembles.

High School Information Requirements for a Standard Diploma

Standard Diploma Course Requirements (8 VAC 20-131-50.B)			
Discipline Area	**Standard Credits: First-time 9th graders as of the 2015-2016 school year**	**Verified Credits: First-time 9th graders as of the 2003-2004 and 2017-2018 school years**	**Verified Credits: First-time 9th graders as of the 2018-2019 school year**
English	4	2	2
Mathematics (Note 1)	3	1	1
Laboratory Science (Notes 2&6)	3	1	1
History & Social Sciences (Notes 3&6)	3	1	1
Health & Physical Education (Note 8)	1		
World Language, Fine Arts or Career & Technical Education (Note 7)	1		
Economics and Personal Finance	1		
Electives (Note 4)	4		
Student Selected Test (Note 5)		1	
Total	22	6	5

NOTE 1

- For students entering the ninth grade for the first time between 2013-2014 and 2017-2018: 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 above the level of Algebra II. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit.
- For students entering the ninth grade for the first time as of the 2018-2019 school year: 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.

NOTE 2

- For students entering the ninth grade for the first time as of the 2013-2014 school year: Courses completed to satisfy this requirement shall include course selections from at least two different science disciplines: earth sciences, biology, chemistry or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. Per the Standards of Quality, a computer science course credit earned by students may be considered a science course credit.

NOTE 3

- Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either World History or Geography or both.

NOTE 4

- Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.

NOTE 5

- For students entering the ninth grade for the first time as of the 2011-2012 school year: A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics or other areas as prescribed by the Board in 8 VAC 20-131-110.

NOTE 6

- Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association or acquires a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential or license for (1) the student selected verified credit and (2) either a science or history and social science verified credit when the certification, license or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board of Education as an additional test to verify student achievement.

NOTE 7

- For students entering the ninth grade for the first time as of the 2013-2014 school year: Pursuant to Section 22.1-253.13:4, Code of Virginia, credits earned for this requirement shall include one credit in fine or performing arts or career and technical education. Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical course credit.

NOTE 8

- For students entering 9th grade as of the 2016-2017 school year: 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.

NOTE 9

- Additional information about GPA, Weighted Courses, and Honors Courses, please refer to the Student Handbook

ADDITIONAL REQUIREMENTS FOR GRADUATION

- For students entering the ninth grade for the first time as of the 2018-2019 school year: In accordance with the Standards of Quality, students shall either (i) complete an Advanced Placement, honors, or International Baccalaureate course, or (ii) 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 standard 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.

High School Information Requirements for an Advanced Studies Diploma

Standard Diploma Course Requirements (8 VAC 20-131-50.B)			
Discipline Area	**Standard Credits: First-time 9th graders as of the 2011-2012 school year**	**Verified Credits: First-time 9th graders as of the 2000-2001 and 2017-2018 school years**	**Verified Credits: First-time 9th graders as of the 2018-2019 school year**
English	4	2	2
Mathematics (Note 1)	4	2	1
Laboratory Science (Note 2)	4	2	1
History & Social Sciences (Note 3)	4	2	1
World Languages (Note 4)	3		
Health & Physical Education (Note 6)	2		
Fine Arts or Career & Technical Education	1		
Economics and Personal Finance	1		
Electives (Electives Note)	3		
Student Selected Test (Note 5)		1	
Total	26	9	5

NOTE 1

- For students entering the ninth grade for the first time as of the 2013-2014 school year: Courses completed to satisfy 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. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit.

NOTE 2

- For students entering the ninth grade for the first time as of the 2013-2014 school year: Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics or completion of the sequence of science courses re- quired for the International Baccalaureate Diploma. Per the Standards of Quality, a computer science course credit earned by students may be considered a science course credit.

NOTE 3

- For students entering the ninth grade for the first time as of the 2011-2012 school year: Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either World History or Geography or both.

NOTE 4

- Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.

NOTE 5

- For students entering the ninth grade between 2011-2012 and 2017-2018: A student may utilize additional tests for earning verified credit in computer science, technology, career or technical education, economics or other areas as prescribed by the Board in 8 VAC 20-131-110.

NOTE 6

- For students entering 9th grade as of the 2016-2017 school year: 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.

NOTE 7

- For students entering the ninth grade for the first time as of the 2013-2014 school year: Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical credit.

NOTE 8

- Additional information about GPA, Weighted Courses, and Honors Courses, please refer to the Student Handbook

ELECTIVES

- For students entering the ninth grade for the first time as of the 2018-2019 school year: Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.

ADDITIONAL REQUIREMENTS FOR GRADUATION

- For students entering the ninth grade for the first time as of the 2018-2019 school year: In accordance with the Standards of Quality, students shall either (i) complete an Advanced Placement, honors, or International Baccalaureate course or (ii) 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.

Notes

High School Course Descriptions

English

English courses are designed to strengthen and extend the ability to communicate. At each grade level, the study of literature and composition are complemented by activities in reading both fiction and nonfiction, in academic and technical writing, and in speaking and listening. English courses in grades nine through twelve are required for graduation and must be completed sequentially. Some elective courses are sequential; others are non-sequential.

The English 9 and 10 classes are designed to provide a challenging program by developing the language skills necessary for continuing educational, professional, and personal progress beyond high school. Curriculum focuses on the areas of critical thinking; speaking and writing of English; collecting, evaluating, and presenting information from a variety of sources; and close reading of texts chosen for personal relevance as well as for cultural and historical importance.

The Honors English 9 and 10 classes are designed for students who have demonstrated the capability and motivation to perform accelerated work beyond the expected level for the grade. Close study and evaluation of texts and writing of critical essays are integral parts of advanced courses. Additional attention is given to literary theory, rhetoric, and style.

English Grade 9

Course # 1130 **Recommended: Grade 9 Credit: 1 Unit**

In ninth grade, students continue to build upon skills previously learned in earlier grades. There is a continued emphasis on reading comprehension by comparing fiction and nonfiction texts. Students will apply knowledge of literary terms and analyze a variety of genres. There will be an increased emphasis on nonfiction reading, and students will make inferences and draw conclusions using explicit and implied textual evidence. The student will continue to expand vocabulary. The student will also plan, draft, revise, and edit to create a variety of forms with an emphasis on analysis and persuasion while defending a position using counterclaims, reasons and evidence from credible sources. Students will analyze and interpret the social, commercial, and/or political motives behind media messages. Students will use multimodal tools to create presentations both independently and in small groups. The student will apply research techniques to analyze information gathered from diverse sources by identifying misconceptions, and possible bias citing both quoted and paraphrased information using MLA style. Students will continue to work in collaborative groups assisting with setting rules and working toward consensus

Honors English Grade 9

Course # 11301 **Recommended: Grade 9**
Credit: 1 Unit
Prerequisites: At least a B in previous English course
Passing score on Grade 8 Reading & Writing SOL

Honors English 9 goes beyond the regular English 10 curriculum and seeks to prepare students for college-level English courses. Along with the study of additional novels, it adds a study of vocabulary that will enhance the creation of student writing. The student will also plan, draft, revise, and edit to create a variety of forms with an emphasis on analysis and persuasion while defending a position using counterclaims, reasons and evidence from credible sources. Students will analyze and interpret the social, commercial, and/or political motives behind media messages. Students will use multimodal tools to create presentations both independently and in small groups. The student will apply research techniques to analyze information gathered from diverse sources by identifying misconceptions, and possible bias citing both quoted and paraphrased information using MLA style. Students will continue to work in collaborative groups assisting with setting rules and working toward consensus. This class requires and A or B in eighth grade English and passing SOL scores on the eighth grade reading and writing SOL or teacher recommendation.

English Grade 10

Course # 1140 **Recommended: Grade 10**
Credit: 1 Unit
Prerequisites: English Grade 9

In tenth grade**,** students continue to build upon skills learned in earlier grades. There is a sustained emphasis on reading comprehension by comparing fiction and nonfiction texts. Students will analyze the cultural and social function and universal themes of fictional texts from different cultures. Tenth grade students will analyze and synthesize information from nonfiction texts to solve problems, answer questions, and generate new knowledge. The student will continue development of vocabulary, with attention to connotations, idioms, classical allusions, and figurative language. The student will continue to use the writing process to write/compose with an emphasis on persuasion and analysis while showing relationships among claims, reasons, and evidence from reliable

sources. The student will create media messages and analyze the cause and effect relationships between mass media coverage and public opinion trends. Students will continue to use multimodal tools to create presentations both independently and in small groups. The student will continue to build research skills presenting information gathered from diverse sources, identifying misconceptions and possible bias while crediting sources using MLA or APA style. The tenth-grade student will continue to become a skilled communicator, working both independently and in collaborative groups while presenting alternate views and working toward common goals.

Honors English Grade 10

Course # 11401 **Recommended: Grade 9**
Credit: 1 Unit
Prerequisites: At least a B in 9th Gr English and teacher recommendation

Honors English 10 goes beyond the regular English 10 curriculum and seeks to prepare students for college-level English courses. Along with the study of 4-5 classic novels, it adds an intense study of vocabulary that will enhance the creation of student writing. The students will continue to use the writing process to compose with an emphasis on persuasion and analysis while showing relationships among claims, reasons, and evidence from reliable sources. Students will create media messages and analyze the cause and effect relationships between mass media coverage and public opinion trends. The students will continue to build practical research skills and use multi modal tools to create presentations both independently and in small groups. Students will collaborate to present alternate views to current issues and work towards the common goal to become effective communicators.

English Grade 11

Course # 1150 **Recommended: Grade 11**
Credit: 1 Unit
Prerequisites: English Grade 10

English 11 students will continue to develop critical thinking skills, communication skills, prepare clear and accurate personal, business, creative, and technical writing, and develop documented expository and persuasive compositions. Students will read and study a variety of American literature and examine relationships among American literature, history, and culture. Additionally, students will individually and collaboratively research, analyze, synthesize, and organize information in order to write, revise, and edit a document paper, using available technology and adhering to proper MLA documentation requirements.

English 12

Course # 1160 **Recommended: Grade 10**
Credit: 1 Unit
Prerequisites: English Grade 11

In English 12, students will read and analyze the development of British literature and literature of other cultures. Writing will consist of expository and informational writings, as well as a well-documented research paper and working resume. Within this writing, students will demonstrate correct usage of grammatical conventions in their papers through study, practice, and revising. Students will create persuasive/argumentative multimodal presentations both independently and in collaborative groups. Students will continue to demonstrate the ability to work within diverse teams and collaborative groups while working toward a common goal.

Dual Enrollment Composition

Course # 11602 **Recommended: Grade 11/12**
Credit: 1 Unit (also transferable college credit hours (6) with a grade of 70 or better each semester)
Prerequisites: English Grade 10 & NRCC entrance requirements

A major objective of Freshman Composition 111 and 112 is to develop students' creativity, critical thinking skills, and personal voices as readers and writers. In doing so, students will aim at understanding the "textual" environments surrounding us, environments such as literature, journalism, and the Internet. Students will focus on communication as a social process that requires an interaction of the individual and his/her environment. In Freshman Composition, students will write several papers, many of which will require extensive research. Students will be given a class syllabus and class schedule at the start of the semester explaining all guidelines, rules, and major assignments of the course. Successful completion of this class will count as six semester hours towards a college degree. The course is offered through New River Community College and is accepted at most colleges as two Freshman English courses. This course requires a placement test given by NRCC, at least a "B" in English 11, previous SOL success in performance, and a recommendation from an English 11 teacher.

Dual Enrollment Survey of English Literature

Course #: 11603
Recommended: Grade 12 **Credit: 1 Unit**
(also transferable college credit hours (6) with a grade of 70 or better each semester)
Prerequisites: Completion of ENG 111-112 &NRCC

entrance requirements
Note: Fee required
Students will study major English works from the Anglo-Saxon period to the present, emphasizing ideas and characteristics of British literary tradition. In this course, students will read and analyze the development of British literature, as well as literature from other cultures. Writing will consist of expository and informational writings, as well as a well-documented research paper. Within this writing, students will demonstrate correct usage of grammatical conventions in their papers through effective study, practice, and revising. Students will create persuasive/argumentative multimodal presentations both independently and in collaborative groups. Students will continue to demonstrate the ability to work within diverse teams and collaborative groups while working toward a common goal. The prerequisite for this course is a successful completion of Dual Enrollment College Composition. Like Dual Enrollment College Composition, this course is offered through New River Community College.

Introduction to Mass Media

Course # 1220 **Recommended: Grade 10- 12**
Credit: 1 Unit
This course must be taken before any other Mass Media class. Students are taught the basic information needed to continue taking classes in Mass Media. The course includes an introduction to copy and caption writing for both yearbook and newspaper articles, photography skills, and layout and design rules to introduce students to the world of journalism. Students will also evaluate the Media for biases and learn to draw their opinions from credible sources. Students who are interested in Introduction to Mass Media should be self-disciplined, have strong English skills, and be a reliable team member.

Mass Media

Course # 12201 **Recommended: Grade 11 - 12**
Credit: 2 Unit
Prerequisites: 1220 Introduction into Mass Media
The Mass Media class produces the *Bison*, the FCHS yearbook. This publication is student-produced, meaning that the students are entirely responsible for the planning, creating, revising, submitting, fundraising, and marketing. Students learn how to use Yearbook Avenue through our yearbook production company, Jostens, in order to create yearbook layouts. Finally, students concentrate on interview, sales, and marketing skills in order to research, fundraise, and market for the yearbook. The focus of this course, in sum, is to train students as journalists in order to create innovative, creative, and interesting layouts and articles to better capture the history of the year at FCHS. Students will also continue their evaluation of relevant media sources and conduct practical research on both national and international issues that surround them. Students who are interested in Mass Media should be self-disciplined, have strong English skills, and be a reliable team member.

Math

Algebra I

Course # 3130 **Recommended: Grades 8-12**
Credit: 1 Unit

Students will study topics in Algebra including data relationships, graphing, order of operations, operations on integers, properties of mathematics, functions, relations, modeling and solving equations, inequalities, percents, linear equations, slope, rate of change, and direct and indirect variations. Students will explore various topics in creative outlets and using critical thinking skills. Emphasis will be placed upon citizenship and communication through collaboration. This is a one-semester course and students will take the Algebra I SOL test upon completion.

Algebra I Part I and Part II

Course # 3131, 3132 **Recommended: Grades 9-12**
Credit: 1 Unit

Algebra I (Part I) is designed to reinforce basic math skills and build upon the student's ability to solve problems using algebraic concepts. Students will explore various topics in creative outlets and using critical thinking skills. Emphasis will be placed upon citizenship and communication through collaboration. Topics include operations with signed numbers, solving equations, functions, graphing functions, laws of exponents, and operations with polynomials. The course is also designed to allow students who have more difficulty with math time to master abstract mathematical concepts. Students must complete this course to take Algebra I (Part II). Algebra I (Part II) is designed to continue the development of math skills necessary for basic problem-solving using algebraic concepts. Topics include a review of material covered in Algebra I (Part I), slope, writing equations of straight lines, solving systems of equations, and solving quadratic equations. Like Algebra I (Part I), this course is designed to allow students who have difficulty with math to master abstract mathematical concepts. Students must complete this course successfully before they can take Geometry. Students will take the Algebra I SOL test upon completion of this course. Students will receive one credit in Algebra I after completing Part I and II.

Geometry

Course # 3143 **Recommended: Grades 9-12**
Credit: 1 Unit **Prerequisites: Algebra I**

This course is for students who have successfully completed Algebra I. Euclidean geometry will be studied. Critical thinking skills will be used to cover the following aspects of geometry: theory and application, informal and formal reasoning (including proofs), symbolic and visual thinking, coordinate and transformational methods. Geometry provides the students with many opportunities to collaborate and communicate effective equation solving skills and applying other topics covered in Algebra. In order to enroll in the one semester geometry class, it is recommended that the student have good communication and citizenship skills, earn at least a "C" average in Algebra I and pass the Algebra 1 SOL. Students will take the Geometry SOL test upon completion of this course.

Geometry Part I and II

Course # 3144, 3145 **Recommended: Grades 9-12**
Credit: 1 Unit **Prerequisites: Algebra I**

The same material is covered as in the one semester Geometry class but at a slower pace. This allows for more collaboration and communication of the topics and more practice. The Geometry SOL test is given at the end of the Part II course. Students will receive one credit after completing both Part I and II.

Algebra, Functions, and Data Analysis

Course # 3134 **Recommended: Grades10-12**
Credit: 1 Unit

AFDA is a course about mathematical modeling and data analysis. Students will study functions and their behaviors, systems of inequalities, probability, survey design and implementation. Data will be generated by practical applications arising from science, business, finance, and other real-world phenomena. Students will solve problems that require the formulation of linear, quadratic and exponential functions or a system of equations. Through the investigation of mathematical models and interpretation and analysis of data from real life situations, students will develop critical thinking skills and strengthen conceptual understandings. The activities in this course will further develop connections between algebra and statistics. Students will demonstrate citizenship and foster creativity through collaboration in various learning tasks. Learners will also further develop proficiency with the language and symbols of mathematics in representations and communication throughout the course.

Algebra II

Course # 3135 **Recommended: Grades 9-12**
Credit: 1 Unit **Prerequisites: Algebra I, Geometry**

Algebra II reviews fundamental concepts acquired in Algebra I and develops those concepts to a more advanced degree. The student will solve practical problems by applying advanced algebraic concepts and by using the graphing calculator to solve and verify solutions. Students will also collaborate with each other to foster creativity, citizenship, and critical thinking. Emphasis will be placed on communication. In order to enroll in the one semester Algebra II course, it is recommended that the student earn at least a "C" average in Algebra I and pass the Algebra I SOL. Students may take the Algebra II SOL test upon completion of this course.

Advanced Algebra & Trigonometry

Course # 3137 **Recommended: Grades 10-12**
Credit: 1 Unit **Prerequisites: Algebra II**

This course is designed to apply the concept of the functions from Algebra to observations made in Geometry, and to explore and extend the mathematics that result from connecting material from these past courses. Trigonometry has many applications in science and engineering, and is the basis of many challenging topics in Calculus and other college-level mathematics courses. Students will work collaboratively utilizing communication, creativity, and citizenship skills to understand the concepts explored. Students should be prepared to develop strong critical thinking abilities as we explore many difficult topics. In order to enroll in this class, it is recommended that the student earn at least a "C" in Algebra II. This is a weighted class.

Dual Enrollment Pre-Calculus (NRCC Math 167)

Course # 3162 **Recommended: Grades 11-12**
Credit: 1 Unit
Prerequisites: Advanced Algebra & Trigonometry, students must pass placement test given by NRCC

This is a thorough course designed to prepare students in the necessary topics for many college level mathematics courses and/or AP Calculus. Students will investigate many types of functions and their graphs. Students will work collaboratively utilizing communication, creativity, and citizenship skills to understand the concepts explored. Students should be prepared to develop strong critical thinking abilities as we explore many difficult topics. A minimum of a B average is recommended in all previous math courses.

AP Calculus

Course # 3177 **Recommended: Grades 11-12**
Credit: 2 Unit **Prerequisites: DE Pre-calculus**

AP Calculus is a rigorous two-semester course designed to prepare students for engineering, economics, life sciences, mathematics, and physical sciences. AP Calculus is the same freshman engineering calculus course taught at most universities. Students will work collaboratively utilizing communication, creativity, and citizenship skills to understand the concepts explored. Students should be prepared to develop strong critical thinking abilities as we explore many difficult topics. A minimum of a "B" average is recommended in all previous math courses including Advanced Algebra & Trig and Pre-Calculus. This is a weighted course. Students take the AP exam in the spring.

Science

Environmental Ecology

Course # 4220 **Recommended: Grades 9**
Credit: 1 Unit

Environmental Ecology connects the relationships between the Earth's environments and the effects that humans have on the ecosystem through creation and implementation of collaborative projects, laboratory work, and discussions. Students will demonstrate communication skills through these experiences as they explore various means of sharing and presenting their findings. Students will use critical thinking to analyze the complex interactions of the environment and evaluate the impact that our choices as citizens make with regard to biodiversity, population studies, ecosystems & biomes, pollution, natural resources, atmosphere & climate change, food & agriculture, environmentalism & sustainability, and current affairs.

Biology

Course # 4310 **Recommended: Grades 10**
Credit: 1 Unit

Biology is a life science that provides a detailed understanding of living systems while examining alternative scientific explanations, conducting laboratory experiments that will involve creative thinking and collaboration among lab groups, incorporating scientific research that validates or challenges ideas via critical thinking skills and analyzing & communicating information. Emphasis is given to biochemical life processes, cellular organization, mechanisms of inheritance, dynamic relationships among organisms and the change in organisms through time. A continual focus on scientific methodology, honesty, good citizenship and data integrity. **Students will take the Biology SOL test upon completion of this course.**

Earth Science

Course # 4210 **Recommended: Grades 11-12**
Credit: 1 Unit

Earth Science is the study of the interaction between physical, chemical, and biological components within the environment to include the impact of humans on the environment. Environmental science focuses on how humans manage and utilize environmental resources, with a large focus on human responsibility, action, and citizenship. Group projects, lab activities, and field research are a weekly occurrence and require both critical thinking skills and creative thinking skills. These hands-on activities will involve collaboration between students in groups that change weekly..

Chemistry I

Course # 4410 **Recommended: Grade 11-12**
Credit: 1 Unit **Prerequisites: C in Alg I**

This Chemistry class is designed to provide students with a detailed understanding of the interaction of matter and energy. This interaction will be investigated with laboratory techniques, manipulation of chemical quantities, and problem solving that will require both critical thinking skills and creative thinking and reasoning. Experimental and analytical investigations will occur during weekly lab experiments that will include examples from environmental, nuclear, organic, and biochemistry content areas. Labs will involve collaboration between students in lab groups that change weekly and writing lab reports will require written communication skills. A continual focus on scientific methodology will include honesty, good citizenship, and data integrity. Pre-req: *C in Algebra I*

Chemistry II

Course # 4420 Recommended: Grade 12
Credit: 1 Unit Prerequisites: at least a B in Chemistry I and successfully passing the Chemistry SOL if taken

This Chemistry class is designed to provide students with a much deeper understanding of the interaction of matter and energy, after they have successfully completed Chemistry I and passed the SOL (if required to take it). This interaction will be investigated with laboratory techniques, manipulation of chemical quantities, and problem solving that will require both critical thinking skills and creative thinking and reasoning. Experimental and analytical investigations will occur during one to two lab experiments each week that will include examples from environmental, nuclear, organic, and biochemistry content areas. Labs will involve collaboration between students in lab groups that change weekly. The majority of lab reports will be student-generated requiring a much higher level of written communication skills than Chemistry I lab reports. Students will be responsible for completing both an annotated bibliography and a literature review using American Chemical Society citation standards, further utilizing high-level written communication skills. A continual focus on scientific methodology will include honesty, good citizenship, and data integrity including a focus on statistical analysis of data.

Dual Enrollment Biology

Course # 43108 **Recommended: Grade 11-12**
Credit: 1 Unit **Prerequisites: Pass NRCC placement test, Bio I, Chem I**

DE Biology I explores fundamental characteristics of living

matter from the molecular level to the ecological community with emphasis on general biological principles. D.E Bio focuses on scientific methodology, good citizenship, laboratory experiments that will involve creative thinking and collaboration among lab groups, and incorporating scientific research that validates or challenges ideas through critical thinking, analyzing and communicating information through presentations and lab reports. Introduces the diversity of living organisms, their structure, function and evolution.

Human Anatomy & Physiology

Course # 4330 **Recommended: Grade 11-12**
Credit: 1 Unit **Prerequisites: Alg I, Bio I, Chem I**

Human Anatomy and Physiology delivers an advanced understanding of the human body while providing a comparative study of the structure & function of body systems and the means by which humans carry out life functions. Both critical thinking and creative thinking are required to understand the content and apply ideas to required projects within this course. Excellent communication skills are needed for lab reports and written reports. The projects and labs will require collaboration between groups of students, and filed trips will help students to communicate and collaborate with local college students and faculty. Good citizenship and scientific integrity with be stressed throughout the course. Topics include: cell & tissue function, biochemistry, and skeletal, muscular, integumentary, nervous, cardiovascular, endocrine, & reproductive systems. This course can create an interest in and serve as a stepping stone to medical and health related fields or serve as a complement to other mammalian-based studies such as animal and agriculture sciences.

Social Studies

World Geography
Course # 2210 **Recommended: Grades 9**
Credit: 1 Unit

The focus of World Geography is the study of the world's peoples, places and environments, with an emphasis on world regions. Students will study the world's population and cultural characteristics, landforms and climates, economic development, and migration and settlement patterns. Particular emphasis is placed on students' critical and creative thinking through the application of geographic concepts and skills for their daily lives. Students communicate to create collaborative projects that allow each student to gain a more personal understanding of the course material. By learning about world cultures, students will gain a "citizenship" level appreciation for diversity and the positive differences in societies. This course includes an end of course SOL test.

World Geography Honors
Course # 22101 **Recommended: Grades 9**
Credit: 1 Unit

World Geography is a survey course that will cover basic important geography skills and focus on the world regions. The study of these regions will include components of the physical, cultural and modern issues affecting these regions today. There is also an inclusion of relevant historical events that shaped these regions. The honors level will challenge students to think more critically and creatively.

World History II
Course # 2342 **Recommended: Grades 10**
Credit: 1 Unit

World History II covers the time period between 1500 AD and modern day. Topic included are the age of exploration, the reformation, world wars and etc. This class requires collaborative work between peers and classroom teacher. Skills that are developed in this class include critical and creative thinking to allow us to understand the complexities and ever changing scenery of the world. Most importantly, by looking into the past and understanding sequence of events allows students to know why the world is the way it is. Students are able to understand their own citizenship in the world by understanding the men and women that came before them.

VA & US History
Course # 2360 **Recommended: Grades 11**
Credit: 1 Unit

Virginia and United States History is a survey course that includes the historical development of American ideas and institutions from the Age of Exploration to the present. The course will provide the student with a basic knowledge of American culture through a chronological study of major issues, movements, people and events in U.S. and Virginia history. Virginia and United States History includes an end of course SOL test. Students critically evaluate primary source documents that reinforce concepts from class. Students work collaboratively to find meaning from period-related documents and communicate the ideas through written evaluations and discussions. Creative thinking is rewarded in the completion of projects that allow students to express their learning individually. The study of the changing landscape of United States citizenship will bring a deeper appreciation of the rights afforded to Americans and the values that have created multi-cultural inclusion in the nation.

AP VA & US History
Course # 2319 and 23191 **Recommended: Grades 11**
Credit: 2 Unit

Advanced Placement U.S. History is a comprehensive, college level course that emphasizes factual knowledge with critical thinking and analytical skills. Students will communicate their understanding of historical concepts and the links between eras through interpretive writing and dialogue. Heavy emphasis is given to essay writing and developing critical thinking skills. Students will be challenged to creatively express their understanding of social, economic and political developments in American history through the creation of collaborative projects and debates where the ideas and input of classmates will push learning to a higher level. The study of the changing landscape of United States citizenship will bring a deeper appreciation of the rights afforded to Americans and the values that have created multi-cultural inclusion in the nation. Students of the course must have demonstrated above average reading comprehension, writing and time management skills. They should have a desire to delve into history beyond the basic understanding. Significant student work will be required outside of class time.

VA & US Government
Course # 2440 **Recommended: Grades 12**
Credit: 1 Unit

Using critical thinking skills (comparison/contrast, analysis, change over time),

students analyze primary source documents to gain a full understanding of the foundations and principles of the United States and Virginia Government. Students communicate with each other through dialogue and debate to incorporate their analysis of governmental structures. Students reflect on the ideas that created and current events that show the growth of the United States Constitution. The reflection allows for an understanding of the responsibilities of American citizenship in a changing time--students will show that they understand their role in the larger society through creative thinking and expression with projects and essays. Students collaborate to incorporate their own ideas with others to find creative solutions for topics related to the principles of all levels of government.

VA & US Government Honors

Course # 24401 **Recommended: Grades 12**

Credit: 1 Unit

This course covers the same material as VA & Government but requires significantly more communication through essay writing. Citizenship values are closely studied to gain a full understanding the law-making process. This course will require significant critical thought in studying current laws, elections and political topics. Students will need strong reading comprehension and writing skills.

World Language

Spanish I
Course # 5510 **Recommended: Grades 9-12**
Credit: 1 Unit
In Spanish 1, students immediately begin to communicate on a daily basis in the target language. Focusing on creating a supportive learning community as well as on the flow of language in the classroom is essential to language acquisition. Student-driven content that is compelling (what students can find interest in) and comprehensible (what students can understand), is a course mainstay. Language acquisition by definition requires a certain degree of cognitive processing at the subconscious level, therefore, critical thinking is always present in the context of the language classroom. Through a constant stream of communicatively-embedded language inputs, students engage in the daily critical analysis of sense and structure as they make meaning out of combinations of sounds and symbols (letters). Students collaborate to create original material as a whole group, in smaller groups, or individually on a constant basis. Through exposure to other cultures and communities via authentic sources, students are given the opportunity to reflect on and compare their views as citizens not only of their own local and regional communities, but also as members of a global community. Level 1 language focuses on setting the foundation of what are known as the Basic Interpersonal Communication Skills (BICS).

Spanish II
Course # 5520 **Recommended: Grades 9-12**
Credit: 1 Unit
In Spanish 2, students continue to communicate on a daily basis in the target language. Communicatively-embedded inputs that are designed to be both compelling and comprehensible continue to be emphasized. Students continue to compare, analyze and apply new terms and structures through repeated practice and critical reflection that occurs daily. Students find that they are naturally able to produce more language with a greater degree of accuracy as they interpret and internalize linguistic input. Students continue to collaborate to create original material as a whole group, in smaller groups, or individually on a constant basis. Further exposure to other cultures and communities via authentic sources is amplified as students further examine their role as citizens of local, regional, national and global communities. Level 2 language focuses on continuing to build the students' foundation of the Basic Interpersonal Communication Skills (BICS).

Spanish III
Course # 5530 Recommended: Grades 10-12
Credit: 1 Unit
(Grade 9 only with teacher approval and conference with parent)
In Spanish 3, students communicate on a daily basis in the target language, producing more language with even more accuracy. Student-driven content that is compelling and comprehensible continues to be developed through communicatively-embedded inputs, inviting students to enjoy a deeper sense of independent creativity with the language. Critical thinking extends further into the realm of analyzing language meaning and form. Students continue to collaborate in order to create original material, including original fiction and creative nonfiction, both in groups and individually. Exposure to further authentic sources allows students to evaluate their potential impact in the world as citizens not only of their own local and regional communities, but also as members of a global community. Level 3 language focuses on deepening the students' Basic Interpersonal Communication Skills (BICS). Speaking and writing in Spanish are increasingly emphasized and promoted while concurrently fostering students' interactive listening and reading competencies.

Spanish IV
Course # 5540 Recommended: Grades 11-12
Credit: 1 Unit
(Grade 10 only with teacher approval and conference with parent)
As an upper-level language course, level 4 Spanish students communicate almost exclusively in the target language on a daily basis, producing more complex language with even more accuracy. Student-driven content continues to be central to the curriculum. Critical analysis and application of more complex grammatical structures are promoted as students continue to self-reflect on linguistic

accuracy in comparison to authentic communicators of the language. As always, students collaborate frequently to create original material, including original fiction and creative nonfiction. Additionally, students continue to develop their competency in presentational communication, creating samples to narrate, inform, explain and persuade. Students are encouraged to reach out and create contacts with individuals and groups within the Spanish-speaking world, all while promoting their view of themselves as interconnected global citizens. Level 4 language begins to bridge students' Basic Interpersonal Communication Skills (BICS) with Cognitive Academic Language Proficiency (CALP). This way, students are able to springboard from the linguistic skills focused on in everyday interactions toward skills more geared toward comparing, synthesizing and inferring in the language

French I

Course # 5110 Recommended: Grades 9-12
Credit: 1 Unit

In French 1, students immediately begin to communicate on a daily basis in the target language. Focusing on creating a supportive learning community as well as on the flow of language in the classroom is essential to language acquisition. Student-driven content that is compelling (what students can find interest in) and comprehensible (what students can understand), is a course mainstay. Language acquisition by definition requires a certain degree of cognitive processing at the subconscious level, therefore, critical thinking is always present in the context of the language classroom. Through a constant stream of communicatively-embedded language inputs, students engage in the daily critical analysis of sense and structure as they make meaning out of combinations of sounds and symbols (letters). Students collaborate to create original material as a whole group, in smaller groups, or individually on a constant basis. Through exposure to other cultures and communities via authentic sources, students are given the opportunity to reflect on and compare their views as citizens not only of their own local and regional communities, but also as members of a global community. Level 1 language focuses on setting the foundation of what are known as the Basic Interpersonal Communication Skills (BICS). While speaking and writing in French are always promoted, the level 1 class greatly emphasizes the skills of interactive listening and reading over producing with the language.

French II

Course # 5120 Recommended: Grades 9-12
Credit: 1 Unit

In French II, students continue to communicate on a daily basis in the target language. Communicatively-embedded inputs that are designed to be both compelling and comprehensible continue to be emphasized. Students continue to compare, analyze and apply new terms and structures through repeated practice and critical reflection that occurs daily. Students find that they are naturally able to produce more language with a greater degree of accuracy as they interpret and internalize linguistic input. Students continue to collaborate to create original material as a whole group, in smaller groups, or individually on a constant basis. Further exposure to other cultures and communities via authentic sources is amplified as students further examine their role as citizens of local, regional, national and global communities. Level 2 language focuses on continuing to build the students' foundation of the Basic Interpersonal Communication Skills (BICS). While speaking and writing in French are promoted, the level 2 class emphasizes the skills of interactive listening and reading over producing with the language.

French III

Course # 5130 Recommended: Grade 10--12
Credit: 1 Unit
(Grade 9 only with teacher approval and conference with parent)

In French 3, students communicate on a daily basis in the target language, producing more language with even more accuracy. Student-driven content that is compelling and comprehensible continues to be developed through communicatively-embedded inputs, inviting students to enjoy a deeper sense of independent creativity with the language. Critical thinking extends further into the realm of analyzing language meaning and form. Students continue to collaborate in order to create original material, including original fiction and creative nonfiction, both in groups and individually. Exposure to further authentic sources allows students to evaluate their potential impact in the world as citizens not only of their own local and regional communities, but also as members of a global community. Level 3 language focuses on deepening the students' Basic Interpersonal Communication Skills (BICS). Speaking and writing in French are increasingly emphasized and promoted while concurrently fostering students' interactive listening and reading competencies.

French IV

Course # 5140 **Recommended: Grades 11-12**
Credit: 1 Unit
(Grade 10 only with teacher approval and conference with parent)

As an upper-level language course, level 4 French students communicate almost exclusively in the target language on a daily basis, producing more complex language with even more accuracy. Student-driven content continues to be central to the curriculum. Critical analysis and application of more complex grammatical structures are promoted as students continue to self-reflect on linguistic accuracy in comparison to authentic communicators of the language. As always, students collaborate frequently to create original material, including original fiction and creative nonfiction. Additionally, students continue to develop their competency in presentational communication, creating samples to narrate, inform, explain and persuade. Students are encouraged to reach out and create contacts with individuals and groups within the French-speaking world, all while promoting their view of themselves as interconnected global citizens. Level 4 language begins to bridge students' Basic Interpersonal Communication Skills (BICS) with Cognitive Academic Language Proficiency (CALP). This way, students are able to springboard from the linguistic skills focused on in everyday interactions toward skills more geared toward comparing, synthesizing and inferring in the language.

Agriculture

Introduction to Animal Science

Course # 8008 **Recommended: Grades 9-12**
Credit: 1 Unit

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 related to animal systems through individual and collaboration projects such as woodworking. Typically, classes will go out in the community and vaccinate
cattle, build fence, or tour local farms to learn real world ag techniques. Students will be exposed to principles of leadership and opportunities within the FFA along with Supervised Agricultural Experience (SAE) opportunities.

Applied Ag Concepts

Course # 8072 **Recommended: Grades 10-12**
Credit: 1 Unit **Prerequisite: Intro to Animals**

Students will experience farm and animal topics to prepare them for running their own agricultural operation or working with a local farmer in the community. Areas of instruction include animal production and handling, food/nutritional sciences, soil and natural resource management, gardening and fruit trees, and farm business skills. Students will gain valuable ag-mechanics skills by learning woodworking, metalworking, and welding. Supervised Agricultural Experiences will allow for independent critical thinking and growth opportunities. Carpentry, electrical, metalworking, and livestock labs are incorporated throughout the course both at school and on local farms by field trip. The course emphasizes leadership development and participation in FFA activities.

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Horticulture Sciences

Course # 8034 **Recommended: Grade 9- 12**
Credit: 1 Unit

Through hands-on projects and laboratory activities, students apply scientific principles to the field of horticulture, including areas of vegetable production, orchard care, landscape design, greenhouse operation, and nursery plant production. Students collaborate, organize, advertise and run the department's annual greenhouse plant sale. This course will include the opportunity for students to attain certification through the Virginia Department of Agriculture and Consumer Services (VDACS) as Private Pesticide Applicators. Critical and creative thinking skills will be utilized in the horticulture shop where students will create outdoor furniture/furnishings that can be utilized in landscape and garden design. Elements of citizenship and communication will be addressed as students will be exposed to the principles of leadership and opportunities within student organizations, along with Supervised Agricultural Experience opportunities.

Landscaping I

Course # 8036 **Recommended: Grade 10- 12**
Credit: 1 Unit **Prerequisite: Horticulture**

Landscaping offers skilled workers satisfying career opportunities in varying working environments. The expanding and evolving green industry keeps skilled workers in high-demand occupations with educational and leadership opportunities. Students will develop necessary skills such as communication, collaboration and leadership qualities that are sought in the workforce. This course

focuses on preparing students for entry-level employment and advancement in landscape design, landscape construction, and landscape maintenance. Students use creative and critical thinking skills to become trained in site analysis and sustainable landscape design principles based on the *US Botanical Garden's* Landscape for Life curriculum. Students will also attain certifications through the Virginia Department of Agriculture and Consumer Services (VDACS) to become *Private Pesticide Applicators* and *Certified Fertilizer Applicators*. The horticulture shop will be utilized to create outdoor furniture/furnishings that can be used in garden design.

Introduction to Floriculture

Course # 8036 **Recommended: Grades 10-12**
Credit: 1 Unit **Prerequisite: Horticulture**

In this introductory course, students develop competencies in each of the major areas of the Plant Systems career pathway through collaboration and critical thinking. Emphasis is placed on plant identification, forestry, propagation methods, environmental factors that contribute to plant growth. Students will also experience an introduction to the various divisions of the plant systems industry with several job shadowing opportunities. As part of the shop component to this course, students will engage in agricultural mechanics skills applicable to plant systems. Elements of citizenship and communication will be addressed as students will be exposed to the principles of leadership and opportunities within student organizations, along with Supervised Agricultural Experience opportunities.

Greenhouse Plant Production and Management

Course # 8035 **Recommended: Grades 10-12**
Credit: 1 Unit **Prerequisite: Horticulture**

This course prepares students for postsecondary educational career programs and entry-level positions in the greenhouse plant production and management industry. Instruction includes industry safety in greenhouse plant production, development of plant production facilities, greenhouse management and operations, plant identification, the science of plant production, business management, and marketing skills.
Prerequisite: Horticulture 8034

Automotive Technology

Automotive Technology I

Course # 8502 **Recommended: Grades 10-12**
Credit: 1 Unit

In this first course of the three-course program, students will 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 will collaborate on group projects focused on basic automotive repair, safety, and the importance of customer service. Students who successfully complete the Automotive Technology program will use critical thinking skills to take the Automotive Service Excellence (ASE) Student Certification examination.

Automotive Technology II

Course # 8507 **Recommended: Grades 10-12**
Credit: 2 Unit **Prerequisites: Automotive Tech I**

In this second course of the three course program, the students will 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, brakes, and safety. They also learn about electrical, electronic and HVAC systems in automobiles. The students will learn to work in a job setting where customer service is top priority and they will demonstrate the ability to be a contributing member of an automotive shop. Through communication and collaboration, students will be given hands-on opportunities to demonstrate their learned skills. Students will also be given the opportunity to start to prepare for internships, job shadowing, part time employment, and the students will be introduced to postsecondary education opportunities. In addition, students who successfully complete this course will be use critical thinking skills to take the Automotive Service Excellence (ASE) Student Certification examination. This is a 2-block class.

Automotive Technology III

Course # 8508 **Recommended: Grades 10-12**
Credit: 1 Unit **Prerequisites: Automotive Tech II**

In this capstone course of the three course program, students will master all aspects of automotive repair, safety, and customer service according to NATEF/ASE Standards. Students will show proficiency through a collaborative hands-on project. They will be given the opportunity to complete all ASE entry-level exams not

completed during Automotive Technology 2. Students will also be given the opportunity to take on line Ford factory training. The student will be prepared for employment as a General Service Technician or an Entry Level Service Writer.

All Automotive Technology students will be given the opportunity to compete in SKILLS USA (Individual) and The Hot Rodders of Tomorrow Engine Challenge (Team).

Building Trades

Building Trades I

Course # 8515 **Recommended: Grades 10-12**
Credit: 1 Unit

Building Trades I prepares students to erect, install, maintain, and repair buildings, and other structures using materials such as metal, wood, stone, brick, glass, concrete and composition substances. Students focus on critical thinking and developing skills in core safety and the masonry, carpentry, electricity, and plumbing professions. Students work collaboratively on projects on and off campus.

Building Trades II

Course # 8516 **Recommended: Grades 11-12**
Credit: 2 Unit **Prerequisites: Building Trades I**

Building Trades II continues to prepare students to erect, install, maintain, and repair buildings, and other structures using materials such as metal, wood, stone, brick, glass, concrete, and composition substances. Students use critical thinking skills to focus on mastering skills in core safety and the masonry, carpentry, electricity, and plumbing professions. Students work collaboratively on projects on and off campus. ***This is a two block class***. (280 hours)

Career Strategies

Course #9074 **Recommended Grades: 9-11**
Credit: 1 Unit

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.

Business Management

Course # 6135 **Recommended: Grades 10-12**
Credit: 1 Unit

Students study basic management concepts and leadership styles as they explore business ownership, planning, operations, marketing, finance, economics, communications, the global marketplace, human resources, and social responsibility as a business citizen. Quality concepts, project management, critical thinking, problem solving, creative processes, and ethical decision-making are an integral part of the course. Student leadership skills may be enhanced by collaboration in school-based or virtual enterprises, job shadowing, internships, cooperative education, and/or the Future Business Leaders of America (FBLA).

Accounting

Course # 6320 **Recommended: Grades 10-12**
Credit: 1 Unit **Prerequisites: Algebra I**

Students learn the basic principles, concepts, and practices of the accounting cycle for a service business and a merchandising business by applying creativity and critical thinking through real-world scenarios. Topics covered include analyzing transactions, journalizing and posting entries, preparing payroll records and financial statements, and managing cash systems. Communication and collaboration skills are strengthened through project-based learning. Ethics and professional conduct are stressed through an emphasis on responsible citizenship. Students learn fundamental accounting procedures using both manual and electronic systems.

Advanced Accounting

Course # 6321 **Recommended: Grades 11-12**
Credit: 1 Unit **Prerequisite: Accounting I**

Students become proficient in applying advanced accounting principles, procedures, and techniques used to critically solve business problems and to make financial decisions. Through the use of accounting and spreadsheet software, students creatively analyze, synthesize, evaluate, interpret and effectively communicate business financial data. Students collaborate in a technology-integrated environment using authentic workplace industry scenarios that reflect current industry trends and standards. Ethics and professional conduct are emphasized through responsible digital citizenship.

Computer Information Systems

Course # 6612 **Recommended: Grade 9-12**
Credit: 1 Unit

Students incorporate critical thinking skills through the creation of real-life projects using various word processing, spreadsheet, database, multimedia presentation, and integrated software. Students collaborate to explore computer concepts, operating systems, networks, telecommunications, and emerging technologies while learning to communicate efficiently and effectively as responsible digital citizens.

Principles of Business and Marketing

Course # 6115 **Recommended: Grades 9-12**
Credit: 1 Unit

Students discover the roles of business and marketing in the free enterprise system and the global economy. Students begin to study basic business concepts dealing with entrepreneurship, marketing, business communication, operations, as well as basic financial concepts dealing with banking, taxation, and investments. Business and marketing concepts are experienced and demonstrated through project-based learning that requires reasoning effectively, critical thinking, and solving a variety of unfamiliar problems in both conventional and innovative ways using technology and creativity. Citizenship mastery will be learned and demonstrated through collaboration between classmates and community volunteer mentors. This also supports development skills and explores real world business careers.

Economics and Personal Finance

Course # 6120 **Recommended: Grades 11-12**
Credit: 1 Unit

Students learn how economies and markets operate and how the United States economy is interconnected with the global economy. Additionally, they learn how to navigate the financial decisions they must face using critical thinking to make informed decisions relating to career exploration, budgeting, banking, credit, insurance, spending, financing postsecondary education, taxes, saving and investing, buying/leasing a vehicle, and living independently. They also learn the importance of investing in themselves in order to gain the knowledge and skills valued in the marketplace. Students learn effective communication and collaboration skills through online and classroom projects. Creativity is enhanced by developing presentations using technology software. Development of financial literacy skills and an understanding of economic principles will provide the

basis for responsible citizenship, more effective participation in the workforce, and career success. The course incorporates all economics and financial literacy objectives included in the Code of Virginia §22.1-200-03B. ***This is a required course for graduation***

Foundation Art I

Course #9120 **Recommended: Grades 9-12**
Credit: 1 Unit

Foundation Art concentrates on teaching students to draw, communicate in visual form and collaborate with other students. The elements and principles of design are a constant focus along with teaching composition and creativity. Students in Art I will concentrate on two-dimensional art, self-expression and critical thinking. Art history and the works of individual artists are studied throughout the semester. The material covered in Art Foundation is the basis for advanced work in all forms of art. This class must be successfully completed before any other art class can be taken..

Advanced Drawing

Course # 9130 **Recommended: Grades 10-12**
Credit: 1 Unit **Prerequisite: Foundation Art I**

The class emphasizes drawing at a more creative level using a variety of drawing mediums. Studies range from abstract to realistic, and covers a wide range of subject matter. Review of the elements and principles of design to increase compositional skills and the use of critical thinking will be examined. Students will demonstrate the mastery of collaboration, communication and character building by working together to successfully complete artistic displays. Art history and the works of individual artists are studied throughout the course.

Sculpture

Course # 9140 **Recommended: Grades 10-12**
Credit: 1 Unit **Prerequisite: Foundation Art I**

Sculpture class emphasizes creativity in three-dimensional form and experimentation with a variety of materials realistically and abstract. Students will learn craftsmanship and critical thinking by evaluating and analyzing constructing skills. Students will demonstrate the mastery of collaboration communication and character building by working together to successfully complete artistic displays. The Principles of design, art history and current artists are studied throughout the course.

Painting

Course # 9147 **Recommended: Grade 10 -12**
Credit: 1 Unit **Prerequisite: Foundation Art I**

Students will explore realistic and abstract painting by using color theory and techniques using acrylic, oil, watercolor and mixed media. The Class will focus on creative and critical thinking skills by using the principles of design to develop good compositions. Students will demonstrate the mastery of collaboration communication and character building by working together to successfully complete artistic displays. Art history and current artists are studied throughout the course.

Pottery

Course # 9145 **Recommended: Grades 10-12**
Credit: 1 Unit **Prerequisite: Foundation Art I**

Students will use creative and critical thinking to develop skills in a variety of pottery making methods and techniques. Each project requires students to problem solve, research and build a relationship with the medium. Hand building techniques include coil, slab and wheel-thrown methods. Pottery has many stages until completion. Students will learn, practice and apply many surface and glazing techniques. The Art Elements and Principles of Design are incorporated into each project. Collaboration and communication between students and the teacher will take place on a regular basis. Pottery throughout history, other cultures and in our own community will be taught to educate and inspire students with their own work. Students will build a body of work towards the goal to share some of their pieces with the community in a local art show.

Craft & Design

Course # 9160 **Recommended: Grades 10-12**
Credit: 1 Unit **Prerequisite: Foundation Art I**

This is a hands-on course designed to give students the opportunity to develop skills in a variety of craft techniques including weaving, basketry, sewing, pottery, jewelry, printmaking and more. Students will use critical thinking to problem solve through each method and technique. Creative thinking is developed and expected to make pieces that are unique. The Elements of Art and Principles of Designs are incorporated into each Craft. Through problem solving, collaboration and communication, students work their way towards a goal all the while connecting to their Appalachian heritage, world cultures and the history of the craft. Students will build a body of work and select pieces to share with the community in a local art show.

Music

Chorus

Course # 9285 Recommended: Grades 9-12
Credit: 1 Unit

Chorus emphasizes fundamental vocal development, traditional notation, and ensemble singing. These topics require performance, creativity, and investigation at a rudimentary level. Opportunities are provided for student exploration of ways in which the content of other arts and disciplines are related to music. Students taking chorus for multiple semesters will steadily improve proficiency in ensemble singing and in individual performance. These students are eligible to audition for special ensembles, including The Madrigal Singers, a Broadway musical district chorus, state chorus and Honors Choir.

Piano Lab

Course # 9255 Recommended: Grades 9-12
Credit: 1 Unit

Piano Lab is designed to provide students with the basic knowledge and skills needed to begin the study of piano music. Students of any skill level--from total beginner to advanced level--are welcome. The student will start with music appropriate for their and interest and skill level. Piano lab students will learn to read music in both the bass and treble clefs and will study the basics of counting both simple and complex rhythms. They will develop the ability to work independently at their own pace but will be expected to meet the required fundamentals of a beginning pianist.
Various styles of music (with teacher approval) can be practiced, studied and performed.

Concert Band

Course # 9214 Recommended: Grades 9-12
Credit: 1 Unit

(Combining Beginning and Advanced Concert Band from current course offerings)
Concert Band class is offered in the second semester and is open to all students who have an interest in instrumental music. There is a requirement for the class of performing at two concerts during the semester, one in March and one in May. During this class, students will learn the principles of intonation, breathing and listening while performing in a wind band ensemble. They will be exposed to a variety of literature ranging from traditional to contemporary. Peer, as well as group, evaluation will provide students with exposure to the area of critical thinking. Collaboration between all participating students is an expected form of learning in this environment. Students will be exposed to the purpose of music in society, whether it be for a civic service such as Veteran's or Memorial Day programs, or as celebration of a given holiday. The art of communication will be explored as students have the opportunity to present a variety of topics to their peers in class performances as both individuals and small ensembles.

Marching Band

Course # 9234 Recommended: Grade 9-12
Credit: 1 Unit

(Combining Advanced and Beginner Marching Band from current course offerings)
The "**Pride of Floyd County High School"** Marching Band is one of the most visible groups in the school. Students who are involved with the marching band will be exposed to a variety of activities throughout the season including marching skills, musical skills, collaborative activities, public performances in a variety of town events, competitions, community support through football game performances, and concerts to celebrate the holidays. The extensive schedule, which is classified as co-curricular, because of the many activities outside of the school day, begins with a mandatory band camp in mid-July and extends through a final holiday concert in December. Attendance at all performances is required. Strong emphasis is placed on character development for students as they represent the high school. Opportunity is provided for a portion of the students to engage in leadership activities where they explore a variety of critical and creative thinking exercises as they are exposed to real life problem solving within the microcosm of a student group.

Dual Enrollment Music Appreciation

Course # 9222 Recommended: Grade 11-12
Credit: 1 Unit

This course increases the variety and depth of the student's interest, knowledge, and involvement in music and related cultural activities. It acquaints the student with traditional and twentieth century music literature, emphasizing the relationship music has as an art form with man and society. It increases the student's awareness of the composers and performers of all eras through listening and concert experiences. Upon the successful completion of this course, the student will be able to do the following: 1) Identify the elements and basic forms of music. 2) Be able to assimilate the material in this course and communicate effectively your understanding of music as an art form. 3) Demonstrate through listening journals and other

assignments the various components necessary to increase listening skills. 4) Contribute to the personal development of the student through the assimilation of the course content. (From NRCC Course Catalog) Students will be given the opportunity to engage in collaborative activities as they share information with their peers through creative formats such as PowerPoint lectures, creative skits or group projects. Public speaking is an integral part of this class. Finally, students will be exposed to the development of music from the early Middle Ages through all of the Classics and on through American music up to and including Broadway productions. They will explore the significant impact historical and cultural events have had on the development of classical and popular music. During these presentations, they will also have the opportunity to engage in peer evaluations as part of their own evaluative process.

Beginning Theater
Course # 1410 Recommended: Grade 9 - 12
Credit: 1 Unit
This class will give practical experience on stage in a comfortable and non-threatening environment, developing the community of theater and its traditions. Developing methods of responding thoughtfully to theatrical performances and productions focuses on proper communication techniques with emphasis on constructive criticism.

Theater
Course # 1420 Recommended: Grade 10- 12
Credit: 1 Unit Prerequisite: Beginning Theater
Creative performance techniques and theatrical movement and styles will focus on communicating emotion and character while advanced ensemble work will require constant collaboration and critical thinking skills to foster that communication. Memorization of lines is expected. The results should be a wonderful shared experience, finely honed acting skills and impressive public performance with additional skills of time management, promotions, and technical skills related to set design and building. Additionally, there will be opportunities to explore directing and independent production work that will further develop students' abilities to communicate creatively using the resources of drama and theater to do so.
Technical Theatre components include theatrical safety, technical terminology, basic scene painting, and elements of lighting and sound.

Introduction to Health & Medical Science
Course # 8302 Recommended: Grade 9 - 12
Credit: 1 Unit
This course introduces the student to a creative variety of health care careers and develops basic skills and critical thinking skills required in all health and medical sciences. It is designed to help students collaborate and understand the key elements of the U.S. Healthcare 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. Throughout the course, instruction emphasizes safety, cleanliness, asepsis, professionalism, accountability, and efficiency within the health care community. Students also begin gaining job-seeking skills for entry into the health and medical sciences field. Students spend time at Floyd Elementary School practicing work-place readiness and creative skills in a hands-on environment. In addition, instruction may include the basics of medical laboratory procedures, pharmacology fundamentals, biotechnology concepts, and communication skills essential for providing quality patient care. Students will be exposed to principles of leadership and opportunities within the HOSA student organization.

Nurse Aide I
Course # 8360 Recommended: Grade 11- 12
Credit: 1 Unit
Nurse Aide I, offered as 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 and develop critical thinking skills that pertain to the normal growth and development, simple body structure and function, and medical terminology and are introduced to microbes and disease. They receive creative skill training in patient-nursing assistant relationships; taking and

recording of vital signs; cardiopulmonary resuscitation; and bathing, feeding, dressing, and transporting of patients in hospitals and nursing homes. Students are exposed to assisting patients in our own community and collaborating together to provide on-the-job instruction in nursing homes and hospitals is part of the course. This course can be used as an introduction to practical nursing or to prepare the student for Nurse Aide II so that all competencies for a certified nursing assistant are met. Students will be exposed to principles of leadership and communication and opportunities within the HOSA student organization.

Dual Enrollment Nurse Aide II

Course # 8362 **Recommended: Grade 11- 12**
Credit: 2 Unit **Prerequisite: Nurse Aide I (C or better)**

Nurse Aide II is an occupational preparation course, emphasizing advanced skill training in areas such as catheter care, range of motion, bowel and bladder training, care of the dying, selected procedures for maternal and infant care, and admission and discharge procedures. The course provides students skills in critical thinking and creativity and the importance of communication in a patient care setting. Students learn diseases and body systems as related to advanced clinical care of the acute medical-surgical patient, the chronically ill, and and the elderly. On-the-job instruction in a licensed nursing home is part of the course. Upon completion of the nurse aide program, the student is eligible to take the nurse aide certification exam that leads to employment as a certified nurse aide in hospitals and nursing homes. This a dual-enrollment course offered through New River Community College; students earn five college credits upon successful completion of the course. Students will be required to take the NRCC placement test. Students will also be required to pass drug testing per *Skyline Nursing Home* policy. Students will be exposed to principles of leadership and opportunities within the HOSA student organization. This is a two-block class. Required prerequisite: Nurse Aide I.

Sports Medicine I

Course # 7660 **Recommended: Grade 10- 12**
Credit: 1 Unit

In this course, students earn a certification in First Aid/CPR/AED. 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 sports medicine field. Upon successful completion of this course, students are eligible to take Sports Medicine II and pursue certification as a personal trainer.

Sports Medicine II

Course # 7661 **Recommended: Grade 10- 12**
Credit: 1 Unit **Prerequisite: Sports Medicine I**

Students will learn about the essentials of personal fitness training. Students will be introduced to human anatomy and physiology, kinesiology, biomechanics, the human movement system, the Optimum Performance Training (OPT) model and other domains of basic exercise science; assessment; exercise technique and training instruction; program design; considerations in nutrition; client relations and behavioral coaching; and professional development, practice, and responsibility. This course builds upon basic knowledge acquired in Sports Medicine I. Upon successful completion of this course, students will be eligible to sit for the National Academy of Sports Medicine- Certified Personal Trainer (NASM-CPT) exam.

Dual Enrollment Medical Terminology

Course # 8383 **Recommended: Grade 11- 12**
Credit: 2 Unit

Medical Terminology is designed to help students learn common medical terms essential for safe patient care. Using critical thinking skills, topics will be presented in logical order, beginning with each body system's anatomy and physiology and progressing through pathology, laboratory tests, and clinical procedures, therapeutic interventions, and pharmacology. Students learn concepts, terms, and abbreviations for each topic. Students will also explore careers in the medical field. Students are able to earn Dual Enrollment Credit through NRCC.

Physical Education

Health & PE 9
Course # 7200 **Recommended: Grades 9**
Credit: 1 Unit
The purpose of Health and PE 8 is to expose students to the concepts of wellness, proper mental health, team sports, and individual lifetime fitness activities. All students will be asked to maintain a year-long fitness log which includes not only completed activities but ongoing goals. This fitness log will include collaboration and communication between the students, teacher, and parent/guardian. Students will be asked to develop good citizenship skills through various activities that benefit individuals in our school and community. Each student is also asked to use their creative and critical thinking skills to introduce new games and fitness skills at appropriate times during the school year.

Health & PE 10/ Drivers Education
Course # 7400/7405 **Recommended: Grades 10**
Credit: 1 Unit
The goal of Driver's Education is to prepare young drivers to operate motor vehicles legally, safely, and responsibly as active citizens. Students will learn about safe and critical driving techniques and the proper attitude and driving behaviors necessary to operate an automobile safely through in class discussions and communication, lectures, simulations, creative projects, group collaboration, peer presentations, and guest speakers. In-car training is NOT a part of the course but is available for students **who have completed the Drivers Education Course** at their own expense through a Behind the Wheel Instructor.

Physical education in the tenth grade allows each student to grow in their collaboration with each of their classmates and teacher. Each activity is designed with student skill development in mind. The rules of each activity varying slightly each day. Teams will vary each day and each team will be required to form their own communication style as h to work collaboratively to be successful. This type of classroom project based learning creates new critical and creative thinking styles that are not present in many other classes. Students developing such skills as being able to collaborate with peers and adults (teachers), think creatively and critically each day, and communicate with anyone in the physical education classroom are workplace skills that are life long and will help each and every student in their chosen field, regardless of what it may be.

Weightlifting & Conditioning/Advanced PE
Course # 7640 **Recommended: Grades 11-12**
Credit: 1 Unit
Weightlifting and Conditioning is designed to encourage and motivate students to maintain a lifestyle that promotes healthy and beneficial activities as active citizens of their community. These courses are designed to instruct students in activities that will provide a foundation for a healthy, physically active lifestyle, where they can collaborate and communicate with different resources to find activities that suit their needs to stay fit throughout their lifetime. Some of the activities and field trips students will participate in throughout this course will promote using critical thinking skills and creativity in how students achieve their end goal.

Technology Education

Technical Drawing & Design

Course # 8434 **Recommended: Grades 9-12**
Credit: 1 Unit

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-world design problems. Students will start to develop critical thinking skills as well as practical problem solving skills. The course is especially recommended for future engineering and architecture students. Students will begin to work in a collaborative environment and will develop the skills needed to communicate effectively.

Engineering Drawing & Design

Course # 8436 **Recommended: Grades 10-12**
Credit: 1 Unit

Students use a graphic language for product design, technical illustration, evaluation of designs, and engineering drawings. They increase their understanding of drawing techniques learned in the prerequisite course. Students use computers, calculators, and descriptive geometry and adhere to established standards to solve design problems. They work in teams to design solutions for an identified need. Students will demonstrate the mastery of critical and creative thinking, collaboration, and communication through the successful completion of a capstone project.

Architectural Drawing & Design

Course # 8437 **Recommended: Grades 10-12**
Credit: 1 Unit

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 homebuilders. Students will demonstrate the mastery of critical and creative thinking, collaboration, and communication through the successful completion of a capstone project.

Robotics I: Engineering Explorations

Course # 8450 **Recommended: Grades 10-12**
Credit: 1 Unit

In Robotics I/Engineering Explorations I, 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, and technical reports. Will begin to develop critical and creative thinking skills in a team project to analyze how different parts and concepts interact with each other to produce overall outcomes in complex systems and develop implement and communicate the results.

Robotics II

Course # 8452 **Recommended: Grades 10-12**
Credit: 1 Unit

Robotics is the second of a possible two-course sequence that will allow students to apply the engineering design process to areas of the designed world, explore ethics in a technological world, and examine engineering systems. Students will participate in STEM-based, hands-on projects as they communicate information through team-based presentations, proposals, and technical reports. This includes the mastery of critical and creative thinking skills in a class project to analyze how parts of a whole concept interact with each other to produce overall outcomes in complex systems, develop implement, and communicate the results.

Culinary Arts

Life Planning
Course #8227 **Recommended: Grades 11-12**
Credit: 1 Unit
Life Planning equips students with life skills. Creating and maintaining healthy relationships, practicing personal nutrition, health, and wellness, and developing a life-management plan are emphasized through relevant life applications. Students apply concepts through creative problem solving and critical thinking. Students grow in responsible citizenship as they engage in collaborative efforts in the community.

Introduction to Culinary Arts
Course #8250 **Recommended: Grades 10-11**
Credit: 1 Unit **Preference grade level: 10**
Introduction to Culinary Arts prepares students to enter the food service industry with the critical thinking and creativity needed to thrive in employment or entrepreneurial opportunities. Collaborating with community organizations, students investigate food safety and sanitation, explore culinary preparation foundation, practice basic culinary skills, explore diverse cuisines and service styles, investigate nutrition and menu development, and examine the economics of food. The curriculum places a strong emphasis on science and mathematics knowledge and skills.

Culinary I
Course #8275 **Recommended: Grades 11-12**
Credit: 1 Unit
In this course, you will take a firsthand look at the exciting culinary industry; explore the history of the food-service industry and techniques used to build a food-service career. You will master culinary techniques such as stocks, sauces and soups, fruits and vegetables, and potatoes and grains in the brigade system while collaborating with peers. A heavy emphasis is placed on safety and sanitation, including preparing and serving safe food while preventing accidents and injuries. You will learn about successful customer relations, communication skills, management and food service cost. As they explore food-preparations techniques, students will apply practices serving basic food products among peers along with community.

Culinary II
Course #8276 **Recommended: Grades 12**
Credit: 2 Unit **Prerequisite: Culinary I**
In this course students will learn state mandated guidelines for the food service industry; attain the ServSafe Restaurant Managers certification, a nationally recognized certification. Display citizenship while performing front-of-the-house and back-of-the-house duties. Students will prepare quality food products and present them creatively; understand food science principles related to cooking and baking; and utilize nutrition concepts when planning meals/menus. Catering experiences will be provided throughout the semester in order to reinforce these skills. This is a two block industry-based class that prepares students for careers in the restaurant and food-service industry.

Nutrition and Wellness
Course #8228 **Recommended: Grades 9-11**
Credit: 1 Unit **Preference grade level: 9**
Students enrolled in Nutrition and Wellness focus on understanding wellness, investigating principles of nutrition, using science and technology in food management, ensuring food safety, planning menus and preparing food, and exploring careers in the field of nutrition and wellness. Critical thinking and practical problem solving are emphasized.

Computer Sciences

Computer Science Foundations
Course # 10020 **Recommended: Grades 9-12**
Credit: 1 Unit
The Computer Science Foundations standards outline the content for a one-year course with an emphasis on computer programming within the context of broader concepts of computer science. The standards build on the concepts of computer science developed in prior grade levels. The standards provide a transition from block-based programming to a text-based programming language and familiarize the student with developing and executing computer programs. Teachers are encouraged to select programming languages and environments, problems, challenges, and activities that are appropriate for their students to successfully meet the objectives of the standards. Programmable computing tools will be used to facilitate design, analysis, and implementation of computer programs. Students should use these tools for exploring and creating computer programs, facilitating reasoning and problem solving, and verifying solutions.

Computer Science Principles

Course # 1001 **Recommended: Grades 10-12**
Credit: 1 Unit **Prerequisite: Computer Science Foundations**

The Computer Science Principles standards outline the content for a one-year course with an emphasis on the principles underlying computer science. The standards build on the concepts outlined in the Computer Science Foundations standards. Students in this course will expand their programming skills and begin to think about and analyze their own problem solving process. Students continue to develop the ideas and practices of computational thinking and consider how computing impacts the world. Teachers are encouraged to select programming languages and environments, problems, challenges, and activities that are appropriate for their students to successfully meet the objectives of the standards. Programmable computing tools will be used to facilitate design, analysis, and implementation of computer programs. Students should use these tools for exploring and creating computer programs, facilitating reasoning and problem solving, and verifying solutions.

Computer Science Programming

Course # 10021 **Recommended: Grades 10-12**
Credit: 1 Unit **Prerequisite: Computer Science Principles**

The Computer Science Programming standards outline the content for a one-year course with an emphasis on computer programming in a text-based language. The standards build on the concepts outlined in the Computer Science Foundations and Computer Science Principles standards. This course continues the study of computer programming and prepares students to write programs of increasing complexity to solve problems of personal interest and professional relevance in a variety of technical fields. Additionally, this course provides the knowledge and experience to prepare students for further studies in computer science. Teachers are encouraged to select text-based programming languages and environments, problems, challenges, and activities that are appropriate for their students to successfully meet the objectives of the standards. The majority of this course will address Algorithms and Programming. While the standards below do not include new content related to Computing Systems or Networks and the Internet, they may be used to provide context for additional exploration of these topics

Program Planning Guide
Grade 8

Pathway: _____

Diploma Type:____Advanced Studies
____ Standard

School Year:_____ **Grade 8**

Course Type	Name of Course Taken	Credits/Verified	
Total Number of Credits:			

Program Planning Guide

Pathway: _____

Diploma Type:____Advanced Studies
____ Standard

School Year: _____ **Grade 9**

Course Type	Name of Course Taken	Credits/Verified	
Total Number of Credits:			

School Year: _____ **Grade 10**

Course Type	Name of Course Taken	Credits/Verified	
Total Number of Credits:			

School Year: _____ **Grade 11**

Course Type	Name of Course Taken	Credits/Verified	
Total Number of Credits:			

School Year: _____ **Grade 12**

Course Type	Name of Course Taken	Credits/Verified	
Total Number of Credits:			