Floyd County High School

Course Guide

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Introduction

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%
Reuse 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 management. 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
Livestock Production
Horticulture
Greenhouse Management
Vet Science
Landscaping
Floriculture

Certifications Earned:

Private Pesticide Applicator Certification
Workplace Readiness Skills

Post-Secondary Options:

Associates of Sciences in Agriculture
Certificate in Turf Management

Sample Post-Secondary Options at a 4-year University: Ag Science Major; Pre-Vet 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

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 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
Welding I Welding II Welding III

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)

Post-Secondary Options at Community College:

Associate of Science: Engineering: Engineering Construction

Career Studies: Electricity; Electrical-Construction Technology;
Construction Technology; Refrigeration and Air Conditioning.

Career Studies Certificate: Air Conditioning and Refrigeration; HVAC; Electrical Wiring

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
Computer Information System
Accounting I and II

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,Teaching, and 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
- Educators Rising

Certifications Earned:

- Workplace Readiness
- Praxis

Summary of Pathway

Do you want to make a difference? Learners who pursue 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:

Family and Consumer Sciences
Nutrition and Wellness
Child Development and Parenting
Life Planning
Teachers for Tomorrow I & II
Individual Development

Introduction to Early Childhood Education

Early Childhood, Education, and Services I

Post-Secondary Options at 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

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.

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%

Courses Offered at Floyd County High School

Culinary I

Culinary II

Certifications Earned

National Restaurant Association ServeSafe Manager's Certifications

Student Organizations

- FCCLA

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%

Summary of Pathway

Do you want to make a difference by helping people or animals? Health science fields provide many challenging educational and training opportunities within a 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 include: science, math, psychology, and technology.

Courses Available at Floyd County High School:

Nurse Aide I and DE Nurse Aide II *(FCHS is an approved Infacility Testing Site -INF)*
Introduction to Health and Medical
DE Sports Medicine I and II
Medical Terminology
Patient Care Technician
Health Assisting Careers

Certifications Earned:

NNAAP- National Nurse Aide Assessment Program
Certified Nurse Aide Licensure (CNA)
NASM-CPT exam

Post-Secondary Options at a Community College:

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

Sample Post-Secondary Options at a 4-year University:

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

Student Organization: HOSA

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

Post-Secondary Options at a 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

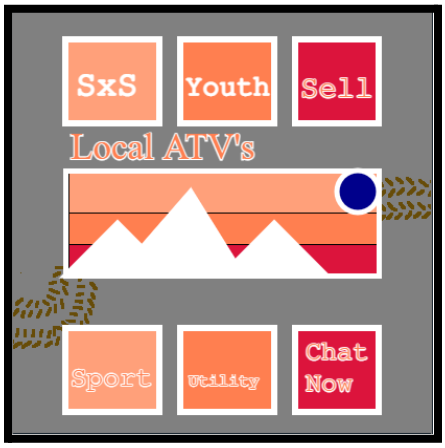
(Projections based on Regional Statistics. Numbers show a percent increase in job openings through 2026)

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%

Student Organizations

- SKILLS USA
- National Technical Honor Society

Example of assignment:



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Courses Offered at Floyd County High School:

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

Certifications Earned:

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

Post-Secondary Options at a 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 4-year University:

* Bachelor of Science: Information Systems; Aerospace Engineering; Civil & Environmental Engineering, Computer Engineering, Engineering & Mechanics, Computer Science
* Bachelor of Business Administration: Computer Information Systems

8th Grade Course Descriptions

Note Regarding Course Selection

Algebra I is offered to eighth grade students and fulfills one high school math requirement. Additionally, passing the course and passing the SOL earns one verified high school credit. 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 high school credit courses (Algebra) will receive information about the policy and procedures. All requests to remove the high school credit and grade from a student's transcript, must be in writing and completed by the deadline indicated on the letter.

English Gr 8
Required: grade 8

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. 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. 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 sheets. As in earlier grades, the meaning and consequences of plagiarism will be stressed. English 8 students will take the SOL tests in Reading and Writing.

English Gr 8 Advanced
Prerequisite: Submit a writing sample, SOL/Benchmark Scores, and Teacher Recommendation Required

English Gr 8 Advanced is a rigorous, accelerated course aligned with the Virginia Grade 8 English Standards of Learning and designed for highly motivated students who demonstrate strong reading and writing skills. Building upon the regular curriculum, students engage with more complex fiction and nonfiction texts, analyze multiple themes and author's craft, and evaluate rhetoric, bias, and credibility in informational works. Writing instruction emphasizes sophisticated thesis development, evidence-based analysis, research using primary and secondary sources, and proper MLA formatting. Students are expected to work independently, participate in academic discussions, and produce extended analytical and argumentative writing. Students enrolled in English Gr 8 Advanced will take the Grade 8 Reading and Writing SOL assessments.

Algebra I
credit: 1 unit
Prerequisites: placement based on multiple sets of math data. Students are recommended.

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 by using critical thinking skills. Emphasis will be placed upon citizenship and communication through collaboration. ***This is a high school credited course.***
An SOL will be given at the completion of the course.

Math 8
Required: grade 8

Students 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, concept representation, and connections among mathematical ideas are emphasized in a hands-on learning environment. This course provides students the opportunity to acquire the 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
Required: grade 8

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 one another to plan and conduct investigations using the scientific method and communicate their results in their lab reports.

World Geography 8
Required: grade 8

In this course, eighth grade students are introduced to upcoming topics and themes for their high school career in the area of Social Studies. This course will study the history, culture and world geography of various world cultures. By learning about world cultures and customs, students will gain a citizenship level appreciation for diversity and the positive differences in societies.

Career Investigations

This course will help students identify and demonstrate the workplace skills that employers desire in their future employees. Students analyze their personal assets; explore career clusters, career pathways, or occupations; and draft an Academic and Career Plan based on their academic and career interests.
High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Health & PE 8
Required: grade 8

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 semester-long fitness log which includes not only completed activities but ongoing goals. Students will be asked to develop good citizenship skills through various activities that benefit individuals in our school and community. This class is divided equally, each day, into a classroom health class and an active PE class. Students should bring appropriate footwear with them each day for class.

Technology and Engineering Foundations
Credit: 1 Unit

In this minds-on, hands-on technology and engineering education course, students will develop design thinking skills and learn about how and why technology works by designing, building, and controlling objects and systems, using a variety of tools. Through this course, students will gain content and practice knowledge about materials, energy, and the engineering processes. ***This is a high school credited course.***

Eighth Grade Electives

Family and Consumer Science

Family and Consumer Sciences 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. Students can expect a variety of book work as well as hands-on projects in this course.

Agriscience

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 (FFA) and exploratory Supervised Agricultural Experience (SAE) projects.

Computer Science (Middle School)

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. In computer science, students communicate with diverse audiences about the use and effects of computation and the appropriateness of computational choices.

Digital Applications
Credit: 1 Unit

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. ***This is a high school credited course.***

Beginning Marching Band (Combined with high school Advanced Marching Band)

The "Pride of Floyd County High School" marching band is one of the most visible groups in the school. 8th grade students who enroll in this course, will be a part of the marching band and will learn side-by-side with older students. 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, and concerts. 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 and responsibility.

Beginning Concert Band (Combined with Advanced Concert Band)

Concert Band is offered in the second semester and is open to students who have interest in instrumental music. As in the case of marching band, students in this class are in the same ensemble as their upper level counterparts. 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 and listening while performing in a wind band ensemble. Students will be exposed to a variety of literature ranging from traditional to contemporary. 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.

Beginning Chorus 8

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, school musicals, district chorus, state chorus and honors choir.

Standard Diploma Course Requirements		
Discipline Area	**Credits**	**Verified Credits**
English	4	2
Mathematics	3	1
Science	3	1
History	3	1
Health & PE	2	
World Language, Fine Arts or CTE	2	
Econ & Personal Finance	1	
Electives (Elective Note)	4	
Total	**22**	**5**

Advanced Diploma Course Requirements		
Discipline Area	**Credits**	**Verified Credits**
English	4	2
Mathematics	4	1
Science	4	1
History	4	1
Health & PE	2	
World Languages	3	
Fine Arts or CTE	1	
Econ & Personal Finance	1	
Electives (Elective Note)	3	
Total	**26**	**5**

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

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

ADDITIONAL REQUIREMENTS FOR GRADUATION:

- AP, Honors, IB, Dual Enrollment, Work-Based Learning, or CTE Credential - Students shall (i) complete an Advanced Placement, honors, International Baccalaureate, or dual enrollment course; or (ii) complete a high-quality work-based learning experience, as established by Board guidance on work-based learning; or (iii) earn a career and technical education credential approved by the board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the advanced studies diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment.
- Virtual Course - Students shall successfully complete one virtual course, which may be a non-credit-bearing course or a required or elective credit-bearing course that is offered online. Guidance on this requirement is provided in the Guidance Document Governing Certain Provisions of the SOA (8VAC20-131) (Word).
- First Aid, CPR, and AED Training - Students shall be trained in emergency first aid, cardiopulmonary resuscitation (CPR), and the use of automated external defibrillators (AED), including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation. Students with an IEP or 504 Plan that documents that they cannot successfully complete this training shall be granted a waiver from this graduation requirement, as provided in 8VAC20-131-420(B).
- Demonstration of the 5 C's – In accordance with the Profile of a Virginia Graduate, students shall acquire and demonstrate foundational skills in Virginia's 5 C's: critical thinking, creative thinking, collaboration, communication, and citizenship.

High School Course Descriptions

English Gr 9
Required: 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

English Gr 9 Honors*
Required: Grade 9
Credit: 1 unit
Prerequisites: At least a B in previous English 8 course, passing score on grade 8 Reading & Writing SOL

Honors English 9 goes beyond the regular English 9 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 an A or B in eighth grade English and passing SOL scores on the eighth grade reading and writing SOL or teacher recommendation. ***English Gr 9 Honors is a weighted course.**

English Gr 10
Required: Grade 10
Credit: 1 unit
Prerequisites: English Grade 9

English 10 builds on prior learning with an emphasis on reading comprehension through the comparison of fiction and nonfiction texts. Students analyze universal themes and the cultural and social functions of literature from diverse cultures and synthesize nonfiction texts to solve problems, answer questions, and generate new knowledge.

Students continue vocabulary development focusing on connotation, idioms, classical allusions, and figurative language, and use the writing process to produce persuasive and analytical writing that clearly connects claims, reasons, and evidence from reliable sources.

Students create and analyze media messages, examining the relationship between mass media coverage and public opinion. They use multimodal tools for individual and group presentations and build research skills by evaluating diverse sources for bias or misconceptions and citing sources using MLA or APA style. Emphasis is placed on effective communication, collaboration, and consideration of multiple perspectives.

English Gr 10 Honors*
Required: grade 10
Credit: 1 unit
Prerequisites: “B” or higher in English Grade 9

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 Gr 10 Honors is a weighted course.**

English Gr 11
Required: 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, using available technology and adhering to proper MLA documentation requirements. There is a 2-part reading/writing SOL given at the end of this course (unless given as part of English 10 Honors).

English Gr 12
Required: Grade 12
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.

DE College Composition I & II (English Grade 11 Dual Enrollment)
Recommended: Grade 11
Credit: 1 unit (Dual Enrollment ENG 111 AND 112; 6 transferable college credit hours with a grade of 70 or higher)
Prerequisites: English Grade 10, GPA 3.0 or higher

A major objective of Freshman Composition 111 & 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. ***DE College Composition I & II is a weighted course.**

DE British & Cultural Literature (English Grade 12 Dual Enrollment)
Recommended: Grade 12
Credit: 1 unit (Dual Enrollment ENG 225 & 245; 6 transferable college credit hours with a grade of 70 or higher)
Prerequisites: ENG 111-112, GPA 3.0 or higher

Like Dual Enrollment College Composition, this course is offered through NRCC and comprises two college English classes. English 225: Reading Literature: Culture and Ideas introduces students to the study of culture and ideas through literature, focusing on the fundamental skills of close reading, interpretation, and literary analysis of literary texts and their contexts. It examines a set of literary texts linked by a particular theme, with inquiry into the historical, cultural, and/or social contexts of the texts and the theme. English 245: British Literature examines British literary traditions and texts from diverse time periods, genres, and authors. It also develops critical thinking and interpretive skills through close reading, discussion, and analysis of literary texts in their historical, cultural, social, and/or literary contexts. ***DE Brit & Cultural Literature is a weighted course.**

Math

Algebra I
Credit: 1 unit
Prerequisites: none

Students will study topics 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 use critical thinking skills. Emphasis will be placed upon citizenship and communication through collaboration. Students will take the Algebra I SOL test upon completion of this course.

Algebra I - Part I & Part II
Credit: 1 unit of math and 1 unit of elective
Prerequisites: none

This two-semester course supports students who need additional time to master abstract mathematical concepts. Algebra I (Part I), offered in the fall, reinforces foundational math skills and introduces algebraic problem solving. Topics include operations with signed numbers, solving equations, functions and graphing, laws of exponents, and operations with polynomials. Students must successfully complete Part I to enroll in Algebra I (Part II).

Algebra I (Part II), offered in the spring, builds on Part I content and continues the development of algebraic problem-solving skills. Topics include review of Part I concepts, slope, writing linear equations, systems of equations, and quadratic equations. Students take the Algebra I SOL test upon completion of Part II. Successful completion of both Part I and Part II meets the Algebra I graduation requirement.

Geometry
Credit: 1 unit
Prerequisite: Algebra I

Euclidean geometry 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. Students will take the Geometry SOL test upon completion of this course.

Algebra, Functions, and Data Analysis (AFDA)
Recommended: grades 10-12
Credit: 1 unit
Prerequisites: Geometry

AFDA focuses on mathematical modeling and data analysis through the study of functions and their behaviors, systems of inequalities, probability, and survey design. Students generate and analyze data from real-world applications in science, business, finance, and other contexts, and solve problems involving linear, quadratic, and exponential functions as well as systems of equations. Through the investigation and interpretation of mathematical models and real-life data, students develop critical thinking skills, strengthen conceptual understanding, and deepen connections between algebra and statistics.

Algebra II
Credit: 1 unit
Prerequisites: 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 may take the Algebra II SOL test upon completion of this course.

Advanced Algebra & Trigonometry*
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 should be prepared to develop strong critical thinking abilities as we explore many difficult topics. ***Advanced Algebra & Trigonometry is a weighted class.**

Dual Enrollment Pre-Calculus (NRCC Math 167)
Credit: 1 unit (5 transferable college credits)
Prerequisites: Adv Alg & Trig with a C or higher & min GPA of 3.0 for 11-12th grad; min GPA of 3.25 for 10th

This is a thorough course designed to prepare students in the necessary topics for many college level mathematics courses. 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. ***DE Pre-Calculus is a weighted course.**

DE Calculus I (NRCC Math 263)
Credit: 1 units (4 transferable college credits)
Prerequisites: DE Pre-calculus*, GPA 3.0 or higher

This Dual Enrollment course presents concepts of limits, derivatives, differentiation of various types of functions and use of differentiation rules, application of differentiation, antiderivatives, integrals and applications of integration.***DE Calculus I is a weighted course.**

DE Calculus II (NRCC Math 264)
Credit: 1 units (4 transferable college credits)
Prerequisites: DE Calculus I, GPA 3.0 or higher

Continues the study of calculus of algebraic and transcendental functions including rectangular, polar, and parametric graphing, indefinite and definite integrals, methods of integration, and power series along with applications. Features instruction for mathematical, physical and engineering science programs..***DE Calculus II is a weighted course.**

Science

Environmental Science
Recommended: Grade 9
Credit: 1 unit
Prerequisites: none

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 I
Recommended: Grade 10
Credit: 1 unit
Prerequisites: none

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 upon completion of this course.

Earth Science I
Recommended: Grades 11-12
Credit: 1 unit
Prerequisites: none

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
Recommended: Grades 11-12
Credit: 1 unit
Prerequisites: Recommended final grade of "C" or higher in Algebra I

This course 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.

DE Biology* (Dual Enrollment Biology)
Recommended: grades 11-12
Credit: 1 unit (4 transferable college credits BIO 101)
Prerequisites: Biology I, Chemistry I, & GPA 3.0 or higher

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. The course is offered through New River Community College. Students are able to earn 4 credits from NRCC during this course. ***This is a weighted course.**

DE Human Anatomy & Physiology I* (Dual Enrollment Anatomy)
Recommended: grades 11-12
Credit: 1 unit (4 transferable college credit hours BIO 141)
Prerequisites: Final grade of "C" or higher in DE Biology & GPA 3.0 or higher

This DE course presents the study of anatomy & physiology including anatomical terminology, homeostasis, histology, integumentary system, skeletal system, muscular system, and nervous system. Part I of II. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills.
Lecture and laboratory are included. This course is offered through NRCC. Students are able to earn 4 credits from NRCC during this course. ***DE Human Anatomy & Physiology I is a weighted course.**

Social Studies

World History I
Required: grade 9
Credit: 1 unit

World History I is a 9th-grade survey of global developments from the early modern era to today. Students explore major events, ideas, and movements—including the Renaissance and Reformation, global exploration, the rise of nation-states, revolutions, industrialization, imperialism, world conflicts, decolonization, and modern globalization—while examining how geography, culture, and human interaction shape historical change. Through analysis of primary and secondary sources, map skills, and critical thinking, students learn to make connections across time and place and gain a deeper understanding of how the modern world was formed and how past events influence current global issues. Students are assessed through a series of Project Based Assessments in place of the SOL.

World History II
Recommended: Grade 10
Credit: 1 unit

World History II covers the time period between 1500 AD and modern day. Topics included are the age of exploration, the reformation, world wars, etc. This class requires collaborative work between peers and classroom teachers. 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, looking into the past and understanding the sequence of events allows students to know why the world is the way it is. Students are able to understand their own citizenship by understanding the people that came before them. Recommended for students seeking an advanced studies diploma.

VA & US History
Required: Grade 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.

DE VA & US History*
Required: grade 11
Credit: 1 unit (Dual Enrollment HIST 121 AND 122; 6 transferable college credit hours with a grade of 70 or better)
Prerequisites: World History I and a 3.0 GPA

This dual enrollment course is taught in cooperation with New River Community College and aligns with HIST 121 (United States History to 1877) and HIST 122 (United States History since 1877). Students examine major political, social, economic, and cultural developments in Virginia and the United States from early settlement to the present. Successful completion allows students to earn both high school credit and transferable college credit while developing critical reading, writing, and historical analysis skills expected in college-level coursework.***DE VA & US History is a weighted course.**

VA & US Government
Required: grade 12
Credit: 1 unit
Prerequisites: none

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 will 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*
Required: grade 12
Credit: 1 unit
Prerequisites: Final grade of “B”or higher in VA/US History

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 of 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.
***VA & US Government Honors is a weighted course.**

World Language

Spanish I
Credit: 1 unit
Prerequisites: none

In level I Spanish classes, students learn to communicate in real-life contexts about topics that are meaningful to them. To develop students' communicative competence, students learn vocabulary and grammar structures needed in everyday situations in which students are required to communicate. Students learn vocabulary for describing themselves, family, school, food, and community. Through the language learning process, students develop a greater understanding of the structure of their own language and the unique aspects of their own culture. Technology is heavily integrated into this course in order to be able to access authentic materials in Spanish.

Spanish II
Credit: 1 unit
Prerequisites: Spanish 1

In Spanish II, students develop their communicative and cultural competence by interacting orally and in writing with other Spanish speakers, understanding oral and written messages in the language, and making oral and written presentations in the language. They begin to show a greater level of accuracy when using basic language structures, and they are exposed to more complex features of Spanish. They continue to focus on communicating about their immediate world and daily activities. They read material on familiar topics and write short, directed compositions. Students study vocabulary and grammar to talk about the Spanish I topics in more detail, as well as the ability to speak and write about the past and tell stories. Technology is heavily integrated into this course in order to be able to access authentic materials in Spanish.

Spanish III
Credit: 1 unit
Prerequisites: Spanish II

In Spanish III, students continue to develop their communicative and cultural competence by interacting orally and in writing with other Spanish speakers, understanding oral and written messages in the language, and making oral and written presentations in Spanish. They communicate on a variety of topics at a level commensurate with their study, using more complex structures in the language and moving from concrete to more abstract concepts in a variety of time frames (including past, present, and future tenses). They comprehend the main ideas of authentic materials that they listen to and read, and are able to identify significant details when the topics are familiar. Students develop the ability to sustain a conversation in Spanish about topics that include historical and contemporary events and issues. They become familiar with vocabulary and grammar to discuss health and fitness, travel, leisure activities, professional activities, sports, nature and geography. Technology is heavily integrated into this course in order to be able to access authentic materials in Spanish.

Spanish IV*
Credit: 1 unit
Prerequisites: Spanish III
(Spanish IV is only offered as independent study class)

In Spanish IV and above, students continue to develop their communicative and cultural competence, understanding oral and written texts, and making oral and written presentations in Spanish. They are able to exchange and support opinions on a variety of topics related to historical and contemporary events and issues at a proficiency level commensurate with their study. They comprehend spoken and written Spanish texts from a variety of authentic sources as well as produce compositions containing well-developed ideas on various topics. Students use Spanish to access information in other subject areas and to compare and contrast cultural elements found in Spanish-speaking countries or regions with those found in their own. The standards for level IV focus on refinement of language skills and may be applied to levels V and above by adjusting specific course content. Technology is heavily integrated into this course in order to be able to access authentic materials in Spanish. ***Spanish IV is a weighted course.**

Introduction to Animal Systems
Recommended: grades 9-12
Credit: 1 unit
Prerequisite: none

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 to vaccinate cattle, build fences, or tour local farms to learn real-world techniques. Students will be exposed to principles of leadership and opportunities within the FFA along with Supervised Agricultural Experience (SAE) opportunities.

Applied Ag Concepts
Recommended: grades: 9-12
Credit: 1 unit
Prerequisites: Introduction to Animals Systems

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.

Veterinary Science I
Recommended Grades: 10-12
Credit: 1 unit
Prerequisite: Introduction to Animal Systems

Description:
Veterinary Science I prepares students for postsecondary education and/or careers in veterinary medicine or related fields. Major topics include characteristics and care of common companion and livestock animals, safety practices, anatomy and physiology, nutrition, medical terminology, sanitation, and clinical exams. Course content also includes communication, facility operations, office functions, and professional etiquette in the workplace. Opportunities to handle live animals may occur. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Livestock Production Management
Recommended Grades: 10-12
Credit: 1 unit
Prerequisite: Introduction to Animal Systems

This course includes instruction in agricultural mechanics, with emphasis placed on the application of mechanical skills to farm power and machinery, as well as on soil and water management, supervised farming programs, and leadership training. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Horticulture Sciences
Recommended: Grades 9- 12
Credit: 1 unit
Prerequisites: none

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
Recommended: Grades 9-12
Credit: 1 unit
Prerequisites: Horticulture Sciences

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.

Floriculture
Recommended: Grades 10-12
Credit: 1 unit
Prerequisites: 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 have 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.

Greenhouse Plant Production and Management
Recommended: Grades 10-12
Credit: 1 unit
Prerequisites: 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.

Automotive Technology I
Recommended: grades 10-12
Credit: 1 unit
Prerequisites: none

In this first class of the three-course program, students will explore, handle, and perform basic functions in engine repair, automatic transmission and transaxle, manual drivetrain 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 - Year Long
Recommended: Grades 11-12
Credit: 2 units
Prerequisites: Automotive Technology I

In this second class 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 drivetrain 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, it is required for students who successfully complete this course will take the Automotive Service Excellence (ASE) Student Certification examination. This is a 2-block class.

Building Trades I
Recommended: grades 10-12
Credit: 1 unit
Prerequisites: none

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
Recommended: grades 11-12
Credit: 2 units
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.

Teaching/Education

Life Planning
Recommended: grades 9-12
Credit: 1 unit
Prerequisites: none

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.

Nutrition and Wellness
Recommended: grades 9-12
Credit: 1 unit
Prerequisites: none

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.

Virginia Teachers for Tomorrow I or Dual Enrollment VA Teachers for Tomorrow I*
Recommended: grades 10-12
Credit: 1 unit (Dual Enrollment is EDU 198 non-transferable 1 credit)
Prerequisites: none
Prerequisites for DE course: minimum 2.0 GPA (10th graders: GPA 2.75 or higher)

Virginia Teachers for Tomorrow fosters student interest, understanding, and appreciation of the teaching profession. Students build a foundation by learning the history, structure and governance of teaching; apply professional teaching techniques, and complete ten hours of classroom observations in a variety of grade levels. Students must think critically and creatively to produce a variety of products that reflect on their learning experiences. To be eligible for enrollment in this course, students must have and maintain a minimum 2.0 grade point average or its equivalent; submit three satisfactory teacher recommendations; and submit a brief essay and application. Forms are available in the Counseling Center. **This course is a weighted course.**

VA Teachers for Tomorrow II or Dual Enrollment VA Teachers for Tomorrow II*
Recommended: grades 11-12
Credit: 1 unit (Dual Enrollment is EDU 200, transferable 3 credits)
Prerequisites: Teachers for Tomorrow I
Prerequisites for DE course: 3.0 GPA

This course provides the opportunity for students to prepare for careers in education as they develop a deeper understanding of the teaching profession; gain insight into the structure and functions of our schools and

school systems; and reflect on the significance of teacher leadership and advocacy for the profession. Students create their digital teaching portfolios as a capstone project to document and communicate their 40-hour classroom field experience. **DE VA Teachers for Tomorrow II is a weighted course.**

Intro to Early Childhood Education
Recommended Grades: 9-12
Credit: 1 unit

Students are introduced to early childhood education career opportunities and explore topics such as child development, safe and healthy environments for children, and developmentally appropriate practice that supports child development. Leadership opportunities are available through the co-curricular student organization.

Early Childhood, Education, and Services I
Recommended Grades: 10-12
Credit: 2 unit

Students prepare to be primary providers of home, family, or institution- based services by focusing on the planning, organizing, and conducting of meaningful play and learning activities; child monitoring and supervision; recordkeeping and referral procedures; and work based learning experiences in labs, local daycare centers, elementary schools under the supervision of the instructor. Students also prepare for continuing in education leading careers in early childhood fields (e.g. medical, social services, education). Contextual instruction and student participation in co-curricular career and technical student organization activities will develop leadership, interpersonal and career skills. **Early Childhood, Education, and Services I is a two block class.**

Child Development and Parenting
Recommended Grades: 9 - 12
Credits: 1

Students enrolled in Child Development and Parenting learn about parenting roles and responsibilities and parenting practices that maximize human growth and development. They focus on ensuring a healthy start for parent and child, balancing work and family, and understanding support systems that provide services for families. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Individual Development
Recommended Grades: 9 - 12
Credits: 1

Individual Development students focus on cultivating positive future orientation; developing skills to build healthy relationships with family, peers, and community members; managing stress and conflict; and preparing to become college and career ready. Contextual instruction and student participation in co-curricular career

and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Business Management
Recommended: grades 9-12
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. Contextual instruction and student participation in Career and Technical Student Organizations (CTSO's), such as FBLA, helps to develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) provides experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Accounting
Recommended: grades 9-12
Credit: 1 unit
Prerequisites: Algebra I

Accounting students study the basic principles, concepts, and practices of the accounting cycle. Topics covered include analyzing transactions, journalizing and posting entries, preparing payroll records and financial statements, and managing cash control systems. Business ethics and professional conduct are emphasized. Students learn fundamental accounting procedures. Contextual instruction and student participation in Career and Technical Student Organizations (CTSO's), such as FBLA, helps to develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) provides experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Advanced Accounting
Recommended: grades 10-12
Credit: 1 unit
Prerequisite: Accounting I

Advanced Accounting students gain knowledge of advanced accounting principles, procedures, and techniques used to solve business problems and make financial decisions. Students work in a technology-integrated environment, using accounting and spreadsheet software to analyze, synthesize, evaluate, and interpret business financial data related to inventory, fixed assets, notes/accounts payable and receivable, implementation of a partnership and a corporation, and other specialized accounting systems. Using authentic

workplace scenarios that reflect current industry trends and standards, students analyze financial data and acquire knowledge of business ethics. Contextual instruction and student participation in Career and Technical Student Organizations (CTSO's), such as FBLA, helps to develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Computer Information Systems
Recommended: grade 9-12
Credit: 1 unit

Students apply problem-solving skills to real-life situations through word processing, spreadsheets, databases, multimedia presentations, and integrated software activities. Students work individually and in groups to explore computer concepts, operating systems, networks, telecommunications, emerging technologies, and career opportunities related to the information technology field. Contextual instruction and student participation in Career and Technical Student Organizations (CTSO's), such as FBLA, helps to develop leadership, interpersonal, and career
skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Principles of Business and Marketing
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 examine basic financial concepts of banking, insurance, credit, taxation, and investments to provide a strong background for making sound decisions as consumers, wage earners, and citizens. The real-world effects of technology, effective communication, and interpersonal skills is evident throughout the course. This course also supports career-development skills and explores career options. Contextual instruction and student participation in Career and Technical Student Organizations (CTSO's), such as FBLA, helps to develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Economics and Personal Finance
Required: grade 11 or grade 12
Credit: 1 unit

Students study how economies and markets function, including the role of the United States in the global economy, while developing critical financial literacy skills for real-life decision-making. Topics include career exploration, budgeting, banking, credit, insurance, taxes, saving and investing, postsecondary education financing, transportation decisions, and independent living. Students build communication, collaboration, and presentation skills through classroom and online projects. This course fulfills all economics and financial literacy requirements outlined in the Code of Virginia §22.1-200-03B and is required for graduation.

Art

Foundation Art I
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 this course 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.

Art: Advanced Drawing
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. This class may be taken multiple times for credit as long as the student has a final minimum grade of B the previous time. Priority is given to students who are taking this course for the first time.

Art: Sculpture
Credit: 1 unit
Prerequisite: Foundation Art I

Sculpture class emphasizes creativity in three-dimensional form and experimentation with a variety of materials realistically and abstractly. 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. This class may be taken multiple times for credit as long as the student has a final minimum grade of B the previous time. Priority is given to students who are taking this course for the first time.

Art: Painting
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. This class may be taken multiple times for credit as long as the student has a final minimum grade of B the previous time. Priority is given to students who are taking this course for the first time.

Art: Pottery
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. This class may be taken multiple times for credit as long as the student has a final minimum grade of B the previous time. Priority is given to students who are taking this course for the first time.

Craft & Design
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. This class may be taken multiple times for credit as long as the student has a final minimum grade of B the previous time. Priority is given to students who are taking this course for the first time.

Chorus
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, school musicals, district chorus, state chorus and Honors Choir. This class may be taken multiple times for credit.

Piano Lab
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 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. This class may be taken multiple times for credit.

Advanced Band - Concert (Spring Semester)
Recommended: grades 9-12
Credit: 1 unit

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 to perform 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. 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. This class may be taken multiple times for credit.

Advanced Band - Marching (Fall Semester)
Recommended: grade 9-12
Credit: 1 unit

The "**Pride of Floyd County"** 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. 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. This class may be taken multiple times for credit.

Dual Enrollment Music Appreciation*
Recommended: grade 10-12
Credit: 1 unit (Dual Enrollment MUS 121 & 221, 6 transferable credits)
Prerequisites: GPA 3.0 or higher (10th graders GPA 3.25 or higher)

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. 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. *Students are able to earn 6 credits from NRCC during this course.* ***DE Music Appreciation is a weighted course.**

Beginning Theater
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
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. This class may be taken multiple times for credit.

Health & Medical Sciences

Intro to Health & Medical Science
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.

DE Nurse Aide*
Recommended: grade 10- 12 (Preference given to 11-12)
Credit: 1 unit
Prerequisites: GPA 2.75 (10th Grade) GPA 2.0 or higher (11th-12th Grade)
Corequisite: Health Assisting Careers

Nurse Aide is a comprehensive occupational training course that focuses on the human body system and common diseases. Students are prepared for advanced clinical care of patients in medical-surgical, rehabilitative, and community health settings. Students receive skills training in patient care, safety, and infection control, and hands-on clinical experiences in healthcare settings that include patient-nurse aide communication and professionalism, measuring and recording vital signs, cardiopulmonary resuscitation, and proper documentation. Work-based learning in a healthcare facility is a required component of the course, and students must maintain the AHA Cardiopulmonary Resuscitation (CPR) and Emergency Cardiovascular Care (ECC) training during this course. This course requires students to meet the Virginia Board of Nursing required clock hours to be eligible to take the National Nurse Aide Assessment program exam. *This course is taken in conjunction with Health Assisting Careers.

Sports Medicine I/Dual Enrollment Sports Medicine I*
Recommended: grade 10- 12
Credit: 1 unit (Dual Enrollment HLT 100, 3 Transferable Credits)
Prerequisites: Intro to Health & Medical
Prerequisite for DE Sports Med. I: minimum 3.0 GPA (10th grade minimum 3.25 GPA)

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. *Students are able to earn 3 credits from NRCC during this course.* ***DE Sports Medicine I is a weighted class.**

Sports Medicine II or Dual Enrollment Sports Medicine II*
Recommended: grade 11- 12
Credit: 1 unit (Dual Enrollment HLT 160; 3 Transferable credits)
Prerequisite: Sports Medicine I
Prerequisite for DE Sports Med. II: Sports Medicine I with a minimum final grade of C and a minimum 3.0 GPA

(This course can be taken for either regular credit, or DE credit if desired.Workloads will vary based on chosen class). 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. *Students are able to earn 3 credits from NRCC during this course.* ***DE Sports Medicine II is a weighted class.**

Medical Terminology (non DE)
Recommended: grade 10- 12
Credit: 1 unit

Medical Terminology is designed to help students learn common medical terms essential for safe patient care. Topics will be presented in logical order, beginning with each body system's anatomy and physiology and progressing through pathology, laboratory tests, clinical procedures, therapeutic interventions, and pharmacology. Students learn concepts, terms, and abbreviations for each topic and explore careers in the medical field.

Patient Care Technician
Recommended Grade Level: 12
Credits: 1
Prerequisite: Nurse Aide

Offered as an occupational course after the completion of Nurse Aide at the 12th-grade level, Patient Care Technician emphasizes the study of nursing occupations as related to the healthcare system. Students study normal growth and development, simple body structure and function, medical terminology, and are introduced to microbes and disease. Upon completion of the course, students will have mastered the skills needed to perform electrocardiograms (ECGs); execute basic medical, lab, and exam procedures; draw blood; and provide basic patient/client care. Students will be eligible to take a national certification exam to become certified phlebotomy technicians, certified ECG technicians, and certified patient care technicians. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Health Assisting Careers
Recommended Grades: 10-12
Credits: 1
Corequisite: Nurse Aide

Students explore opportunities in the health care field by developing basic skills common to several assisting careers. They study body structure and function, principles of health and disease, and an overview of the health and patient care system. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations. *This course is taken in conjunction with Nurse Aide.

Health & PE Gr 9
Required: grade 9
Credit: 1 unit

The purpose of Health and PE 9 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 semester-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.

Health & PE Grade 10/ Drivers Ed Classroom
Required: grade 10
Credit: 1 unit
Prerequisites: Health & PE 9

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. Good attendance is important as to successfully complete the course, a minimum number of seat hours is required.

PE 10 is designed with student skill development in mind. Activities and teams will vary on a daily basis. Students will learn to work as part of a team as well as individually on skills that can be incorporated into a lifetime physical fitness program.

Advanced PE (Weightlifting & Conditioning)

Recommended: grades 9-12
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. This class may be taken multiple times for credit.

Technical Drawing Design
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
Credit: 1 unit
Prerequisites: Technical Drawing Design

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
Credit: 1 unit
Prerequisites: Technical Drawing Design

Students learn the principles of architecture and increase understanding of working drawings and construction techniques learned in the prerequisite course. Experiences include residential and commercial building designs, rendering, model development, and structural details. Students use computer-aided drawing and design (CADD) equipment and established standards or codes to prepare models for presentation. The course is especially beneficial to future architects, interior designers, or homebuilders. Students will demonstrate mastery through the successful completion of a capstone project.

Robotics I: Engineering Explorations
Recommended: grades 9-12
Credit: 1 unit

In Robotics I/Engineering Explorations I, students explore technology and engineering fundamentals as they relate to solving real-world problems. Students study engineering history, major achievements, and key engineering fields and careers. Through hands-on projects, students apply mathematical and scientific concepts and the engineering design process. Emphasis is placed on teamwork and communication through presentations, proposals, and technical reports. Students also complete a team-based project analyzing how components and concepts interact within complex systems to produce overall outcomes.

Robotics II/Engineering Design and Development
Credit: 1 unit
Prerequisites: Robotics I

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 result.

Culinary Arts I
Recommended: grades 10 - 12
Credit: 2 units

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 costs. As they explore food-preparations techniques, students will apply practices serving basic food products among peers along with the community.

Culinary Arts II
Credit: 2 units
Prerequisite: Culinary Arts 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.

Computer Science Foundations
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. 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
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
Credit: 1 unit
Prerequisite: Computer Science Principles

The Computer Science Programming standards define a one-year, text-based programming course that builds on Computer Science Foundations and Computer Science Principles. Students advance their programming skills by writing increasingly complex programs to solve problems of personal and professional relevance across technical fields. The course emphasizes Algorithms and Programming while preparing students for further study in computer science. Teachers select appropriate text-based languages, environments, and challenges to meet course objectives, with Computing Systems and Networks and the Internet used as contextual topics for exploration.

Advanced Placement Computer Science*
Credit: 2 units, yearlong
Prerequisite: Algebra II and Computer Science Programming

AP Computer Science focuses on the computing skills required to program in Java. The course introduces students to computer science through various topics that include problem solving, design strategies and methodologies, data structures, algorithms, analysis of potential solutions, and the ethical and social implications of computing. The course is meant to be the equivalent of a college-level introductory course in computer science and emphasizes the design issues that make programs understandable, adaptable, and reusable. This is a year-long course, with the AP exam being given in the Spring. ***AP is a weighted course**.

Welding

Welding I/ Dual Enrollment Welding I*
Recommended: grade 11
Credit: I unit (Dual Enrollment WELD 100 and WELD 123, 7 non-transferable credits)
Prerequisite: none
Prerequisite for DE Welding I: minimum 2.0 GPA or pass the placement test

In this course, students develop critical thinking skills while learning manual, semi-automatic, automatic, cutting, and electric arc welding processes to fabricate and weld metal parts using diagrams, blueprints, and specifications. Students collaborate with Hollandsworth and Vose using lean manufacturing principles aligned with the Six Sigma program and, upon completion, earn a Yellow Belt certificate. The course also emphasizes safety practices and techniques, including OSHA 10 certification, to promote job-site safety and effective communication. If taken as a dual enrollment course, students may earn 7 college credits through New River Community College. ***DE Welding I is a weighted class.**

Welding II/Dual Enrollment Welding II*
Recommended: grade 12
Credit: 1 unit (Dual Enrollment WELD 124, 4 non-transferable credits)
Prerequisite for Welding II: Welding I/DE Welding I
Prerequisite for DE Welding: minimum GPA 2.0 and completion of DE Welding I

This course introduces arc and oxyfuel welding and cutting. It provides fundamental principles of joining ferrous and non-ferrous metals, welding and cutting processes, equipment and safety procedures with emphasis upon welding and cutting procedures. This is a two-block class.
If taken as a DE course, students are able to earn 4 credits from New River Community College.
***DE Welding II is a weighted class.**

Welding III or Dual Enrollment Welding III*
Recommended: grade 12
Credit: 1 unit (Dual Enrollment WELD 160; 4 non-transferable credits)
Prerequisite: Welding II
Prerequisite for DE Welding III : minimum GPA 2.0 and completion of DE Welding II

This course teaches the operation of AC and DC power sources, welding polarities, heats and electrodes for use

in joining various metal alloys by the arc welding process. This course deals with running beads, butt, and filet welds in all positions. An emphasis is placed on safety procedures. Students are able to earn 4 credits from New River Community College during this course.

***DE Welding III is a weighted class.**