
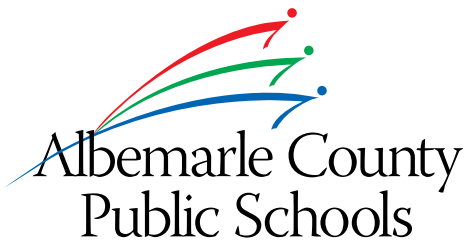


Pathways To Your Future

Guide to
High School
Credit Courses
2014–2015


Albemarle County
Public Schools





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12 Lifelong-Learning Standards

The Division developed 12 Lifelong-Learning Standards through which we set rigorous expectations for how students learn, analyze information, and communicate. These standards lead to increased student engagement, content mastery, and higher-order thinking. Students who attain these standards will be equipped with a foundation for lifelong inquiry and learning. In addition to high levels of achievement as measured by state assessments, students demonstrate their depth of understanding through locally-developed benchmark performance assessments within the context of each academic discipline.

Lifelong-Learning Standards

- 1. Plan and conduct research;**
- 2. Gather, organize, and analyze data; evaluate processes and products; and draw conclusions;**
- 3. Think analytically, critically, and creatively to pursue new ideas, acquire new knowledge, and make decisions;**
- 4. Understand and apply principles of logic and reasoning; develop, evaluate, and defend arguments;**
- 5. Seek, recognize, and understand systems, patterns, themes, and interactions;**
- 6. Apply and adapt a variety of appropriate strategies to solve new and increasingly complex problems;**
- 7. Acquire and use precise language to clearly communicate ideas, knowledge, and processes;**
- 8. Explore and express ideas and opinions using multiple media, the arts, and technology;**
- 9. Demonstrate ethical behavior and respect for diversity through daily actions and decision making;**
- 10. Participate fully in civic life and act on democratic ideals within the context of community and global interdependence;**
- 11. Understand and follow a physically active lifestyle that promotes good health and wellness; and**
- 12. Apply habits of mind and metacognitive strategies to plan, monitor, and evaluate one's own work.**

Albemarle High School

Principal: **Jay Thomas**
2775 Hydraulic Road
Charlottesville, VA 22901
TEL (434) 975-9300 FAX (434) 974-4335
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Murray High School

Principal: **Ashby Kindler**
1200 Forest Street
Charlottesville, VA 22903
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www.k12albemarle.org/murrayhs

Western Albemarle High School

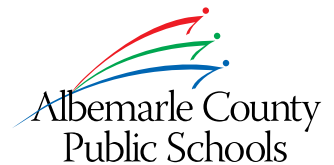
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CATEC

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Albemarle County Public Schools does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the non-discrimination policies:

Director of Human Resources
 401 McIntire Road
 Charlottesville, VA
 22902
 (434) 296-5827

For further information on notice of non-discrimination, visit <http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm> for the address and phone number of the office that serves your area, or call 1-800-421-3481.

INTRODUCTION

Welcome to the *Guide to High School Credit Courses* for Albemarle County Public Schools. This guide is provided as a tool to enable you to embrace learning, to excel in your work and readiness for a career and education beyond high school, and to own your future!

January is the time of year for students to make plans and to choose courses for the coming school year. As a part of this process, the *Guide to High School Credit Courses* is provided to assist you with course selections and long-term educational/career planning. School counselors, in collaboration with parents and teachers, assist each student in planning a program of study and selecting courses for the next school year.

How to Use This Guide

On page 3 of this guide, you will find a five-year planning form. This form does not take the place of your career plan; rather, it is meant to be used as a planning worksheet by you, your parents, and your school counselor.

This guide is organized in sections as outlined in the table of contents. It begins by identifying specialty centers and specialty programs offered at the high school level so you can think about pathways leading to them. Next, the guide is divided into department and course subject areas with a description of each course. The final sections include general information about graduation requirements, diploma options, drop and add procedures, and programs for enrichment. An alphabetical index of all courses is on pages 88-89.

Course Descriptions

As you get further into the guide and start reading about courses, you will find that each course description has several parts. The listings for courses in this *Guide to High School Credit Courses* include the following information (where applicable):

- **Course title**
- **Course level**—see page 78 for an explanation of course levels
- **Prerequisite(s)**—courses that must be passed before taking this course
- **Corequisite**—a course that must be taken at the same time as another course.
- **Grade level**—9, 10, 11, 12
- **Location**—If not indicated, the course is taught at all three base high schools: AHS, MoHS, and WAHS.

Sequential Electives

Students qualifying for a Standard Diploma or a Modified Standard Diploma must successfully complete two elective courses that are sequential (courses that provide a foundation for further education, training, or preparation for employment). Certain courses satisfy the requirement for fine arts or career and technical education and for sequential electives.

These icons indicate important information about courses.



Indicates Standards of Learning Test (SOL)



Indicates the course is offered at CATEC



Indicates this course is offered through Piedmont Virginia Community College

The Process Timeline

The Course Request Process for the upcoming year is an opportunity for you to think carefully about your interests, achievements, and educational and career goals. Give very serious consideration to this process. Here is the timeline:

- Dec. 1.** *Guide to High School Credit Courses* will be made available to students and parents online to make preliminary requests and plans. Schools may print copies upon request.
- Dec.—Jan. 2.** Curriculum Expos for current high school students and rising 9th graders will take place.
- 3.** Classroom Presentations and Small Group Program Planning Sessions will take place with school counselors as they visit classrooms to explain the *Guide to High School Credit Courses*. School counselors will begin meeting with students individually to review teacher recommendations, five year plans, and transcripts.
- 4.** Teacher recommendations will be completed for each student prior to student online registration.
- Jan. — March 5.** Students schedule a meeting with school counselors to request courses.
- May 6.** Copies of course requests will be sent home.
- June 7.** To allow for the building of a balanced master schedule, all course request adjustments must be made by the last day of the school year.

To ensure the best choice of courses, especially elective courses, all requests should be given your most thoughtful consideration. Your school will develop the master schedule and will allocate teaching staff around students' choices early in the process, so alternate courses may not be available at a later date.

Course Selection Worksheet / Career Plan

Full Name _____ Current Grade _____ Counselor _____

Diploma Type _____ Career Pathway _____ Career Planning Goals _____

Post Secondary Plan: 4 year school _____ 2 year school _____ Technical Training _____ Military _____

Other _____

Grade	English	Social Studies	Math	Science	Health/PE Elective	World Language/ Elective	Other Electives	Credits	Verified Credits
Middle School 6-8									
9									
10									
11									
12									

How do I start making a career plan?

It might sound like a huge task to plan your whole career; but if we understand that everything can be done systematically, then it won't turn into a hassle in the end. According to research, these are the four main pillars and units of career planning:

Self-Assessment Learn more about you; be clear about your likes, dislikes, values, personality, and learning style.

Research Find out more about the careers that interest you—about the output of these careers and what the working situations will be like.

Make a Fit Match your skills with the career that best suits you and your skill sets.

Create a Plan Craft a whole plan that includes finding an educational program, selection of a school, financial aid, resumé preparation, standardized admission tests, and interviewing techniques.

Adapted from Career Planning Tools at www.OnlineEducationFacts.com

Specialty Centers



VISION: We are the school of excellence and choice for students, staff, and businesses.

MISSION: Our mission is to develop workforce skills and careers.



We want to offer you choices in your education. As a result, we are always seeking new pathways for enrichment, learning support, and expanded career and continuing educational opportunities. The programs and courses on the following pages represent larger-scale centers housed at different schools.

Overview of CATEC Career Programs

The Charlottesville-Albemarle Technical Education Center (CATEC) operates with a very special purpose in mind: to provide high school students and adults in the community an opportunity to prepare for successful careers or to update existing skills. Students may choose to seek employment upon graduation and/or to continue their formal education through apprenticeship programs or advanced study in technical institutes, community colleges, and universities.

Students may be admitted to the center if they meet the following criteria:

- I. Attend Albemarle County or Charlottesville City Schools;
- II. Attend neighboring high schools (admitted on space available basis);
- III. Have parental permission;
- IV. Submit application through school counselor and meet requirements for admission to programs; and
- V. Pay tuition if they are adults and space is available in the class.

Application & Selection Process

Students wanting to enroll in CATEC programs must complete an Application for Enrollment, available through their home high school counseling office. Students will complete an online application with their guidance counselor during the course registration conference.

Since class sizes at CATEC are limited, CATEC will review the applications and select students based upon the following:

- I. Applicants will be considered for the programs if they meet listed prerequisites;
- II. CATEC will review the following information on applicants: attendance, disciplinary record, grades, grade level, age, and personal interview, if applicable. Final selection for each program will then be based upon a variety of factors including the above information, the number of enrollments from each school, and the total enrollments from each school division;
- III. Current CATEC students wishing to return to either complete their program or to enter a new program must obtain a grade level of "C" or higher or get permission from the CATEC Administration; and
- IV. Juniors & Seniors are given priority in all programs with Sophomores being accepted on a case by case basis in all but the following programs: Cosmetology, Barbering, Auto Tech, Practical Nursing, Pharmacy Tech, Dental Assistant, and EMT/FF.

Program Completer/ Certificate/Seal Options

All credit(s) for CATEC programs meet the requirements for a career and technical education elective(s).

Students who finish any state-approved one- or two-year sequence of technical courses and earn a high school diploma will constitute a “program completer.”

Program completers receive a Career and Technical Education Certificate of Completion (based upon program requirements).

Students earn a Career and Technical Education Seal if they complete one of the following:

- I. Achieve a B average in a sequence of courses;
- II. Pass an examination that confers certification from a recognized industry, trade, or professional association; or
- III. Acquire a professional license in the field from the Commonwealth of Virginia.

Students will receive a Certificate of Participation upon completion of a one-year program or one year of a two-year program (based upon program/certificate requirements) or completion of a two-year program and no high school diploma earned.

Verified Credits

Career and technical students may earn two verified credits toward a Standard Diploma by completing a program sequence and passing a recognized certification or licensure examination. One of these may be substituted for a verified credit in either science or history and the other used as a student-selected verified credit.

Technical Education Organizations for Students

Student participation in SkillsUSA or Health Occupations Student Association (HOSA) is an integral part of instruction in all of CATEC’s programs. These organizations provide opportunities for students to develop personal leadership and communication skills and motivate them to excel in their chosen fields of study.



Curriculum Focus

While there are many technical “hard” skills taught in our programs at CATEC, an increased portion of our instruction is geared towards workplace readiness skills, known as “soft” skills. These skills are incorporated into the curriculum for each trade area, as well as implemented school-wide in lessons to better prepare students for the workplace environment.

In addition to the workplace skills, we incorporate Entrepreneurship and Technology Skills into the trade areas to better prepare students for opportunities once they have completed their program of study.



Students receive comprehensive technical instruction in preparation for the workforce. The instructors are industry and state certified and have significant experience in their occupation.



Businesses and community members who are interested in making connections and developing programs should check out our web-site at www.catec.org

CATEC Programs

Academic Programs		a. m.	p. m.	Grade	Prerequisite	Course Number	Credits
Exploratory English	English 10 Academic/Advanced	■		10th		1149	1
	Trade Exploratory (Students explore possible career options by rotating through different labs—nine weeks per lab, 4 labs per year)	■		10th		9908	2
Advanced English	Academic / Advanced English 10	■		10th	English 9	1149	1
	Academic / Advanced English 11	■	■	11th	English 10	1159	1
	Academic / Advanced English 12	■	■	12th	English 11	1167	1

Note: All English courses meet SOL requirements. The classes above can be taken in conjunction with any A.M. or P.M. CATEC program. A student can earn three credits: 1 English and two elective credits.

Summer Programs		Grade	Prerequisite	Credits
Internship Program	The Summer Internship Program allows students to explore a career interest in the Health and Medical Sciences field or the Information Technology field. Students are paired with a mentor for 3 weeks during this work experience. Students will also receive several hours of employability skills training at CATEC. Students must go through an application process to be considered for an internship, and not all students are guaranteed a placement. The application process will take place during the month of April. P/F	11-12	None	1
Camp Opportunities	Opportunities are being explored for summer classes at CATEC that will be in conjunction with local businesses and will develop programs of enrichment and skill training. Visit www.catec.org in January for additional information. P/F	8-10		

Technical Programs		Course #	Industry Certification	Credits		
				HS	Verified	College
Audio, Media & Communications	Music Industry Technology	8441		2		
Automotive Technology	Auto Body Technology I	8679		2-3		
	Auto Body Technology II	8680	NOCTI	3	1-2	
	Automotive Service Technology I	8506		3		
	Automotive Service Technology II	8507	AYES	3	1-2	20 JSRCC
Engineering & Construction	Building Trades I	8515		3		3 PVCC
	Building Trades II	8516	NCCER	3	1-2	6 PVCC
	Masonry I	8512		3		3 PVCC
	Masonry II	8513	NCCER	3	1-2	3 PVCC
	Green Industry Technology	90745		1.5		
Health Sciences	Dental Assistant	8328	NOCTI Certified Dental Assistant	3	1-2	
	Emergency Medical Technician/ Fire Fighting	8705/ 8334	EMT Basic Firefighter I	3	1.5	6 PVCC
	Nurse Aide	8360S/ 8362S	Industry Certification: Certified Nursing Assistant	3	1-2	
	Pharmacy Tech	8305S	State Licensure	3	1-2	
Service Industries	Barbering I	8747		3		
	Barbering II	8748	State Licensure	3	1-2	
	Cosmetology I	8527		3		
	Cosmetology II	8528	State Licensure	3	1-2	
	Intro to Culinary Arts	8250				
	Culinary Arts I	8521		3		
	Culinary Arts II	8522	NOCTI / ServeSafe	3	1-2	

*Note: Pass certification and be a CTE completer to earn 2 verified credits

NOCTI – National Occupational Competency Testing Institute

NCCER – National Center for Construction Education and Research

Changes in scheduling may occur based on enrollment numbers

Specialty Centers

MATH, ENGINEERING & SCIENCE ACADEMY



MESA—Math, Engineering, and Science Academy



The Math, Engineering, and Science Academy offers a four-year program designed to prepare students for a college preparatory pathway to a career in engineering. Students will thrive in a state-of-the-art laboratory environment designed to provide authentic experiences in mathematics, engineering, and science. Academy students will explore science and mathematics through the lens of engineering research and design. Students will learn to communicate complex ideas reflecting the rapid growth of technologies applicable in the global community. Students enrolled in the Academy will have the opportunity to experiment with cutting-edge technologies as they interact and intern with professionals in the science, mathematical, and engineering fields.

This program is offered at Albemarle High School, but is available to all Albemarle County Public School students. Students must enroll as full-time students and provide their own transportation to Albemarle High School. Applications should be submitted to your school counseling office by the deadline.

HONORS ALGEBRA II / HONORS TRIG/PRE-CALC (2 year program)

Prerequisites: Algebra I, Geometry (concurrently), Teacher Recommendation, Application

Co-requisite: Eng. Science & Research

Grades: 9-10: (students must enter the program in their 9th grade year)

3 Credits (Algebra II, Trig and Pre-Calc)

Students will complete the Algebra II and Pre-Calculus curriculum in a project enriched class environment that will bring real-world focus and meaning into complex mathematical concepts. Students will study a variety of functions in-depth, along with their applications; uses and derivations of conic sections; systems of equations and their use in engineering design; basic differential calculus and its applications; complex numbers and their uses in electrical engineering; polar coordinates; and more. Enrichment topics, as they relate to the mathematical concepts and/or cross curricular science topics, will be explored throughout the two-year course. Emphasis will be placed on the physical applications for concepts. Students will take the Algebra II SOL at the end of the first year. At the end of this course, students will be prepared for the rigors of AP Calculus.

Hon Algebra II; MESA 3166 1 credit
Hon Trig/Pre-Calc; MESA 3167 2 credits

HONORS PHYSICS/ HONORS EARTH SCI/CHEMISTRY (2 year program)

Prerequisites: Algebra I, Geometry (concurrently), Teacher Recommendation, Application

Co-requisite: Alg II / Trig/Pre-Calc

Grades: 9-10 (students must enter the program in their 9th grade year)

3 Credits (Earth Science, Chemistry and Physics)

Students will complete three levels of science in two years in an integrated science course that focuses on research and projects that overlap the disciplines and create a richer understanding of the sciences. The major concepts of earth science, geology, oceanography, astronomy, and meteorology will be studied through the chemistry and physics framework. Chemical bonding, atomic structure, reactions, and gas laws will become the fundamentals upon which earth science is brought into focus. The physical forces of nature and energy relationships along with molecular kinetic theory, waves, gravity, motion, electricity and circuitry will allow the student to understand the sciences and the natural world in a holistic context. The investigative skills used by practicing scientists are heavily emphasized. Students will take the Earth Science and Chemistry SOL upon completion of this course. At the end of this course students will be prepared for the rigors of AP Chemistry or AP Physics.

Hon Physics; MESA 4202 1 credit
Hon Earth Sci/Chemistry; MESA . . 4203 2 credits



“Engineering design, analysis and teamwork will be emphasized through a semester-long project involving the Lego® Mindstorms Robot.”

—EGR 120

Math, Engineering, and Science Academy (MESA) at Albemarle High School

HONORS ENGINEERING RESEARCH I

Prerequisite: Algebra II, Physics (concurrently), Teacher Recommendation, Application

Co-requisite: Intro to Engineering (EGR120)

Grades: 11 1 Credit: (Science elective)

Students will further develop strong research and analytical skills through hands on experiments. Experiments will be in various science disciplines with a focus on data collection, validation, and analysis. A project suitable for entry in the science fair will be required upon completing the 1st semester. The second semester will explore engineering principles and techniques through hands on experiments and research.

..... Hon 8454

HONORS ENGINEERING RESEARCH II

Prerequisite: Math 164, Calculus A/B, Qualifying VCCS or SAT Score, Instructor Approval

Co-requisite: Engineering Design (EGR 115)

Grade: 12 1 Credit: (Science elective)

The MESA course is designed to allow students the flexibility to investigate scientific areas that interest them. Guidance that accentuates (stresses, emphasizes) essential skills needed to excel and succeed in a global environment: teamwork; communication; and creativity will be provided.

..... Hon 8452

ENGINEERING DESIGN/ EGR 115



Prerequisite: Introduction to Engineering, Math 164, Calculus A/B, qualifying VCCS or SAT Score, Instructor Approval, Science, Engineering Research I (concurrently)

Co-requisite: Engineering Research II
Grade: 12

1 High School Credit; 2 College Credits (transferable to UVA, VATECH, ODU, VCU)

This course allows students to examine systems, the interaction of technology and society, ethics in a technological world, and the fundamentals of modeling while applying the engineering design process to areas of the designed world. Students will participate in hands-on projects in a laboratory setting as they communicate information through team-based presentations, proposals, and technical reports. Students will learn the principles of orthographic projection and multiview drawings. Other topics will include descriptive geometry with relationships of points, lines, and planes. Sectioning, dimensioning, and computer graphic techniques will be introduced.

..... 8450

INTRODUCTION TO ENGINEERING / EGR 120



Prerequisite: Qualifying VCCS, AP, SAT II 680

Co-requisites: Engineering Research II; Math 164;

Grade: 11

1 High School Credit; 2 College Credits (transferable to UVA, VATECH, ODU, VCU)

This course allows students to examine systems, the interaction of technology and society, ethics in a technological world, and the fundamentals of modeling while applying the engineering design process to areas of the designed world. Students will participate in hands-on projects in a laboratory setting as they communicate information through team-based presentations, proposals, and technical reports.

This course is dual enrolled with PVCC as EGR 120 Introduction to Engineering. EGR 120 is an introductory-level engineering class designed to introduce students to ideas, concepts, and methods universal to all disciplines of engineering. Engineering design, analysis, and teamwork will be emphasized through a semester-long project involving the Lego® Mindstorms Robot. In addition to problem solving, this class will emphasize important skills that will be useful to students throughout their careers including technical documentation, presentation skills, and the use of software-based computational tools for solving engineering problems.

..... 8451



Indicates PVCC Dual Enrollment

Dual Enrollment offers the student credit through Piedmont Virginia Community College (PVCC), as well as high school credit, for courses offered during the regular school day at the high school. Dual Enrollment/Credit courses taken in the core areas (English, history/social sciences, science, and mathematics) are weighted as college/dual enrollment courses. Students taking Dual Enrollment courses follow the college add/drop policy and deadlines. See your school counselor for more information.

Specialty Centers

Health and Medical Sciences Academy (HMSA)

Inspiring Excellence, Innovation, and a Future of Service

This program is offered at Monticello High School, but is available to all Albemarle County Public School students. Applications should be submitted to your school counseling office by the deadline.



The Health and Medical Sciences Academy (HMSA) is designed to prepare students for college and/or career pathways in the Health Sciences. Academy students will explore an integrated curriculum through the lens of Health Sciences and Research. During their junior and senior year, students will have additional

opportunities to support their academic aspirations in Health Science Careers that may include but are not limited to: Case Studies, Internships, Clinical Rotations, Site Visits/Tours, and College Visits.

Mission

The Health and Medical Sciences Academy's mission is to empower students for success by using 21st century skills while exploring Health Science Career opportunities. The program will provide students with a foundation for post-secondary education or workforce readiness in certified health related professions. Students will explore core content with technology through integrated projects, case studies, and focused learning experiences.

Academy Pathways

Pathway 1: Allied Health (to include a variety of industry certification programs)

Pathway 2: Technical, Bio-Engineering, Medical Equipment

Pathway 3: Medical Doctor, DDS, RN, LPN

A student's studies may culminate in career and technical centers, community college, or a four-year program based on their choice of pathway and success in the Academy.

HMSA HONORS BIOLOGY/PRINCIPLES OF BIOMEDICAL SCIENCES/HEALTH

Prerequisite: Acceptance into the HMSA

Grade: 9 2.5 Credit

The course curriculum is integrated and will explore content from the core areas through the lens of Health and Medical Sciences. The goal of the integrative course is to provide an opportunity for students to pursue their interests and prepare for a career in health and medical sciences. Students will be exposed to various professions in the health care field, participate in field trips and case studies as they explore opportunities of interest. Students are taught concepts of human physiology, medical innovation, water contamination, public health issues, molecular biology, and forensic autopsy. Students complete an independent project as a culminating activity.

..... 4323

HMSA MEDICAL RESEARCH LABORATORY I

Prerequisite: Acceptance into the HMSA

Grade: 9 –10 .5 Credit

In Medical Laboratory Technology I, students gain foundational knowledge and skills appropriate for STEM research to include a variety of medical-related career paths in the field of medical technology. Students will address problems that can be tested using the scientific method. The scientific method is an inquiry process used to systematically study, investigate, and provide explanations for observed phenomenon in the natural world. Students are introduced to diagnostic and therapeutic laboratory procedures that support medical research and practice, and investigate safety, quality assurance, and ethical concerns associated with the field of medical technology.

..... 8377Q

Health and Medical Sciences Academy (HMSA) at Monticello High School

HMSA HONORS CHEMISTRY

Prerequisite: Acceptance into the HMSA

Grade: 10 1 Credit

Students are introduced to basic chemical concepts including composition of matter, atomic structure, periodic table, chemical bonding, formulas and equations, reacting quantities, gas laws, and acid base theory. The investigative skills used by practicing scientists are emphasized. This course is taught through the lens of medical science in order to further familiarize students to new opportunities of interest.

..... 4413

HMSA HONORS ANATOMY AND PHYSIOLOGY

Prerequisite: Acceptance into the HMSA

Grade: 10 1 Credit

Students explore the human body systems of communication, power, and movement. To do this, students are taught the body's components, tissues, molecules and cells, as well as concepts of homeostasis and body system defenses. Students will complete case studies, participate in field trips and will continue to explore career opportunities in Health and Medical Sciences.

..... 4335

HMSA MICROBIOLOGY/ NAS 185



Grade: 11–12 1 Credit

This course allows students the opportunity to Survey microorganisms, presenting their characteristic and activities as related to health and disease. Students will participate in hands-on laboratory activities. This course fulfills general education requirements for students interested in earning their Associates of Applied Science Degree in Nursing at PVCC.

..... 4319

HMSA PRINCIPLES OF PSYCHOLOGY / PSY 200



Grade: 11–12 1 Credit

This course surveys the basic concepts of psychology. The course covers the scientific study of behavior, behavioral research methods and analysis and theoretical interpretations. Included are topics that cover physiological mechanisms, sensation/perception, motivation, learning, personality, psychopathology, therapy and social psychology. This course fulfills general education requirements for students interested in earning their Associate of Applied Science Degree in Diagnostic Medical Sonography at PVCC.

..... 2901

HMSA DEVELOPMENTAL PSYCHOLOGY / PSY 230



Grade: 11–12 1 Credit

This course allows students the opportunity to study the development of the individual from conception to death. The course follows a life-span perspective on the development of the person's physical, cognitive and psycho-social growth. This course fulfills general education requirements for students interested in earning their Associates of Applied Science Degree in Nursing at PVCC.

..... 2906

HMSA JUNIOR/SENIOR INTERNSHIP

Offered at MoHS 1 Credit

Grade: 11–12

Internships are designed to support a student's long-term education and career goals. Students will work closely with professional mentors and will have the opportunity to experience "first-hand" a particular career or pathway. Students can enhance their academic and technical skills and become more informed about certain career field expectations and requirements prior to entering college and/or the workforce. Students will meet with the HMSA Director to determine placements suitable for their career goals.

..... 9076

HMSA INDEPENDENT RESEARCH PROJECT

Offered at MoHS 1 Credit

Grade: 11–12

Independent Study provides the opportunity for students to investigate a topic of personal interest that is outside the scope of current course offerings. Mentors for independent study can be school faculty or community members. Research project proposals will be submitted to the HMSA Director and should include a commitment from a mentor and a plan for carrying out the independent study.

..... 9933



Indicates
PVCC Dual
Enrollment

Specialty Centers

The Environmental Studies Academy

is a four-year academic program designed to offer various career and college concentration options for all

ESA Concentrations:

- **Agricultural:** Career pathway in Agricultural sciences, Horticulture, green materials, and sustainability. May include industry certifications.
- **Conservation:** Career or educational pathway in resource management including fisheries, wildlife, forestry, land use, natural resources, Ecology, and alternative energy.
- **Research Focus:** Educational pathway preparing students to pursue careers in Environmental Science, Research, Health, Policy, Law, Physical, and Earth Sciences

All Students will develop a comprehensive portfolio including work samples, potential internship, and Independent study based on individual concentration and focus.

Environmental studies is the interdisciplinary academic field that studies human interaction with the natural environment in the interest of solving complex problems.

This program is offered at Western Albemarle High School, but is available to all Albemarle County Public School students. Applications should be submitted to your school counseling office by the deadline.

ESA INTRODUCTION TO ENVIRONMENTAL STUDIES

Prerequisite: Acceptance into the ESA

Grade 9 1 Credit

Introduction to Environmental Studies, is an elective that all incoming academy students will take. This course introduces students to various career options available in the broad field of environmental studies. Pathways and academic planning are centered around weekly spotlights that focus on utilizing community resources and experts in their fields that can highlight potential careers. Students will engage in discussions and debates on local, regional, and global environmental issues building a greater understanding of citizenship and stewardship responsibilities.

..... 4271

ESA RECYCLED MATERIALS AND PROCESSES TECHNOLOGY

Prerequisite: Acceptance into the ESA

Grade 9 1 Credit

Students focus on recycled, reclaimed, and sustainable industrial/technical materials and processes as they fabricate usable products and conduct experiments. This laboratory course is recommended for students interested in technical careers

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ESA WORLD GEOGRAPHY: PHYSICAL AND HUMAN

Prerequisite: Acceptance into the ESA

Grade 9 1 Credit

World Geography provides a rigorous curriculum that introduces students to the study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. The content and perspectives of the course are centered on the world's peoples and their cultural characteristics, landforms, climates, economic development, migration, and settlement patterns. Spatial concepts of geography will be used as a framework for studying interactions between humans and their environments. The skills of analytical reading, writing, and research will be key components of this course and will be practiced daily. This course is designed to expand academy students understanding of culture, environmental impact, natural resources, and global citizenship.

Academic/Advanced 2209

Honors 2209

Specialty Centers

Murray High School

Murray High School is a non-traditional public charter school that is fully accredited by the Virginia State Board of Education. In 2001, Murray was named the first public high school to become a Glasser Quality School. Murray High School serves approximately 110 students, grades 9 through 12, from throughout the county. Murray was established as an option for students whose academic and personal needs were not being met with a traditional program. Students interested in attending Murray complete an application process. The process includes completing an application stating their reasons for applying, participating in an interview, and attending a visitation day at Murray. These and the student's permanent records are then reviewed by an admissions committee that makes the decision regarding the student's appropriateness for the Murray program. Mastery learning is used, and all students must earn an 80% or better on every assignment. Instruction is differentiated according to the student's needs and interests, and project-based learning is emphasized. Murray High offers courses needed to fulfill the requirements to earn either a Standard Diploma or Advanced Studies Diploma. Murray students are encouraged to enrich their high school program through dual credit courses at PVCC, CATEC courses, senior internships, and independent studies.

Murray High School,

1200 Forest Street, Charlottesville, VA 22903, Phone: 434-296-3090 • Fax: 434-979-6479 • www.k12albemarle.org/murrayhs

ENGLISH

The English curriculum at Murray includes a multi-grade, thematic approach. Both the Albemarle County curriculum and the Virginia Standards of Learning are included in the curriculum that emphasizes the continuous development and improvement of reading, writing, speaking, and listening skills. Students study major works of literature. Courses are open to students at any grade level and students will receive the appropriate level of English credit. Students take the English Standards of Learning Test in the eleventh grade or at the completion of their 3rd English credit. English classes may include but are not limited to the topics listed below. Students do not choose English topics though both student interest and scheduling needs are considered for placement.

- English through Journalism
- American Studies (English 11 and United States History)
- English through Poetry
- English through The Short Story and Novel
- English through Leadership
- English through African American Literature
- English through Drama
- English through Multimedia
- Advanced Placement English Literature (College level course)

MATHEMATICS

- Study Skills Math/Algebra Lab—Preparation for Algebra I
- Algebra I*—Prerequisites: 8th grade Math and/or teacher recommendation
- Geometry*—Prerequisite: Algebra I
- Algebra II*—Prerequisite: Algebra I
- Algebra Functions, And Data Analysis (AFDA) Prerequisite: Algebra I
- Algebra II/Trigonometry Prerequisite: Algebra II, Geometry

SOCIAL STUDIES

The social studies curriculum is based on the Virginia Standards of Learning and incorporates project-based and inquiry-based instruction. The social studies courses at Murray High School may include but are not limited to the following:

- World History To 1500*
- World History From 1500 To Present*
- World Geography*
- Virginia and United States History*
- Virginia And United States Government: This course requires that each student complete ten hours of community service.

WORLD LANGUAGES

The main purpose of studying a world language is to understand and communicate with peoples of different nationalities and ethnic groups and to appreciate their contributions to the development of our own nation and culture. The world languages offered at Murray consist of the following:

- Spanish I, II, and III (There may be a workbook fee.)

SCIENCE

The science curriculum is based on the Virginia SOL's and includes a project-based, inquiry-based approach. The science courses at Murray include but are not limited to the following:

- Earth Science*
- Biology*
- Oceanography
- Chemistry*
- Physics
- Anatomy and Physiology

FINE ARTS

These courses are designed to stimulate creativity, develop critical thinking skills, impart technical knowledge, and expand expressive skills through a wide variety of developmental experiences in the arts.

- Visual Arts—Art 1 through Art 4 (Drawing, painting, multimedia crafts, and sculpture are included)
- Music* Music classes are dependent on student interest and scheduling needs. Music course offerings may include Jazz History. Fees apply for these courses.



*SOL test required

HEALTH AND PHYSICAL EDUCATION

Classes are scheduled by semester so that the health and the physical education components occur and are graded separately. Students may elect to complete their two required semesters of health and/or physical education in the same year.

- **Physical Education I-II** (.5 credit each) involves the study of and participation in a variety of physical activities.
- **Health Education I** (.5 credit) Areas of study include nutrition, diseases, first aid, and family life.
- **Health Education II** (.5 credit) Areas of study include: substance abuse, driver education, mental health, and family life.
- **Weight Lifting I-IV**
- **Advanced PE/Elective**
(offered based on student interests and needs.)

DRIVER'S EDUCATION

■ Part I Classroom

During the sophomore year, the 36-hour driver's education classroom instruction component is provided as a part of the Health II curriculum. Students are cautioned not to be absent during this 6-week period, as excuses from parents and doctors do not exempt one from the DMV requirement for classroom instruction.

■ Part II Behind-the-Wheel

Students should be scheduled for Behind-the-Wheel training around 16 years of age. Murray High School does not offer Behind-the-Wheel training. Students are encouraged to sign up at their base school for this portion of driver's education. (See page 48 for more information.)

SPECIAL EDUCATION PROGRAMS

The Special Education Program is provided for students who have been identified with a disability and found eligible for special education services. Assistance is provided using various levels of service including consultation/ monitor, collaboration, and resource classes.

■ Consultation/Monitor

Non-Credit

The special education teacher offers support to students in mainstream classes through consultation with regular education teachers to monitor student performance and to give direct assistance on an as-needed basis.

■ Resource Non-Credit

Direct assistance is available for a variety of student needs including test-taking, homework, make-up work, project/research paper development, and organization and study skills.

ADDITIONAL OFFERING TO FULFILL GRADUATION REQUIREMENTS

■ CATEC

Students apply to, meet requirements for admission to, and attend programs of their interest at the Charlottesville-Albemarle Technical Education Center (CATEC). For more CATEC information see pages 4-7.

■ Leadership

Leadership courses are offered as electives. These courses may focus on understanding personal leadership through the study of issues related to social justice or on school leadership issues. See the History/Social Sciences section for full course description.

■ CTE Geospatial Technology

This program introduces students to Geographic Information Systems (GIS) and Global Positioning Systems (GPS) technology. Students learn to use these technologies to collect, analyze, and display a variety of data to solve real life problems. This course may be taken as a science or elective credit. Students have the opportunity to earn transferable credit through a partnership with James Madison University. (See the CTE Section for full course description, page 25.)

■ Courses Through PVCC

Seniors are encouraged to take courses offered at Piedmont Virginia Community College (PVCC). A three-hour college class is equal to a .5 high school credit. Placement testing and assistance with PVCC registration are available at Murray in the guidance office.

■ Independent Study

Prerequisite: Teacher recommendation and proposal approval. Proposal information is available in the school counseling office.

1 Credit or .5 Credit per semester

Independent study provides the opportunity for students to investigate a topic of personal interest that is outside the scope of current course offerings. Mentors for independent study can be faculty from the school or community members.

■ Internship Program

An application procedure is required 1-2 Credits

All Students are encouraged to participate in a senior internship program. Students work with professionals in the community as interns in jobs related to career objectives. Typical internships include the areas of medicine, law, architecture, engineering, computer science, veterinary medicine, education, public relations, journalism, management, accounting, and finance.

■ Economics/Finance

The Economics/Finance class is offered to fulfill the graduation requirement for students entering the 9th grade in 2011 and beyond and is also offered for student interest.

Special Education

SPECIAL EDUCATION PROGRAMS



Albemarle County Schools are committed to providing all children with opportunities to benefit from a public education. Special education programs and services are available to county residents who have children with special educational needs. These programs and services are provided for children with disabilities

whose second birthday falls on or before September 30 through the age of 21 years. Each student receives special education services designed to meet his or her individual needs. These programs are discussed and planned by school personnel and the parents and student involved. Often instruction is carried out both in regular and special education classrooms.

Each special education student's progress is reviewed at least yearly and his / her need for special services is reassessed at a minimum of every three years. Special education programs and services are provided by trained personnel in the following areas of disability as defined by federal and state law: Autism, deaf-blindness, developmental delay, emotional disability, hearing impairment (including deafness), intellectual disability, multiple disabilities, orthopedic impairment, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, or visual impairment (including blindness).

Contact: Kevin Kirst, Director of Special Education and Student Services 434-296-5885

SPECIAL EDUCATION DIPLOMAS

The Special Education Program is provided for students who have been identified with a disability and found eligible for special education services. Assistance is provided using various delivery models of instruction.

In addition to the Advanced and Standard Diploma, students with disabilities who receive special education services have available to them additional diploma options.

Modified Standard Diploma¹

The Modified Standard Diploma program is intended for certain students at the secondary level who have a disability and are unlikely to meet the credit requirements for a Standard Diploma. For details about Modified Standard Diploma, see the Graduation Requirements section of this book.

Special IEP Diploma

A special diploma (called IEP or Individualized Education Program Diploma) is awarded to identified students with disabilities who require special education services and have completed the requirements of the Individualized Educational Program.

SPECIAL EDUCATION COURSE DELIVERY MODELS

Consultation/Monitor

The Special Education Department offers support to students in mainstream classes through consultation with regular education teachers, monitoring of the student's performance, and direct assistance on an as-needed basis

Study Skills

Direct assistance is available for a variety of student needs including the following: test-taking, homework and make-up work, project/research paper development, and organization and study skills. This class is designed for students in credit-bearing classes.

Collaborative Classes—Credit

Regular and special education teachers work together to teach core subjects.

Departmentalized Model/Self-Contained Core Classes—Credit

These classes are taught at the standard level by special education teachers. They are intended for students with significant levels of need such that they would not be successful in collaborative classes. In order for students to be enrolled in these departmentalized classes, need and placement must be documented through the IEP process. Small group and/or individualized instruction is provided in a setting where several content areas are being taught simultaneously. Students in these classes take the designated SOL tests, if appropriate.

Departmentalized Model/Self-Contained Elective Classes—Credit

These classes are taught by special education teachers. They are intended for students with significant levels of need such that they would not be successful in collaborative classes. In order for students to be enrolled in these departmentalized classes, need and placement must be documented through the IEP process. Small group and/or individualized instruction is provided in a setting where several content areas are being taught simultaneously.

BASIC COMPUTER SKILLS

1 credit Offered at MoHS, AHS

Students will learn basic keyboarding and introductory typing skills as well as proper typing technique, basic typing position, posture, and practice key stroking, spacing, return, and other typing skills. Students will also learn basic computer and printer set up and how to use computer programs such as word processing, PowerPoint, and spreadsheets in order to gain skills needed to secure employment as members of a global community and economy.

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COMMUNICATION MATTERS

Grades 9-12 1 credit Offered at AHS

This course is designed to help students who have difficulty passing the Virginia English end-of-year Writing SOL test. Students will write extensively using the writing process to improve writing skills and to understand how proper writing helps them communicate more clearly. Students will work independently a great deal while the teacher provides one-on-one instruction in specific areas of need.

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PERSONAL LIVING AND FINANCE

Grades 9 -12 1 Credit

This course gives instruction in the skills needed to manage personal finances and make sound financial decisions. This course serves as a math credit for the Modified Standard Diploma.

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¹ Students who entered 9th grade for the first time prior to 2013-14

Course Descriptions

HOME IMPROVEMENT AND MAINTENANCE

Prerequisites: Teacher Recommendation
Grades 9-12 **1 credit** **Offered at AHS**

Students will study identification and use of tools, basic measurement, basic safety, wood identification, fasteners, painting and staining, plumbing, and electricity. Students will also address Workplace Readiness Skills and demonstrate competencies through projects, hands-on activities, field trips, and community service. Also, students will develop a portfolio.

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READING SKILLS

1 Credit **Offered at MoHS**

This course is offered for students whose reading ability is significantly below grade level. It is designed to develop fundamental reading skills. This course is taken along with and not in place of English. Students should be placed in this class according to their individualized weaknesses as documented through the IEP process.

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WRITING SKILLS

1 Credit **Offered at MoHS**

This course is offered for students whose writing skills are significantly below grade level. It is designed to develop fundamental writing skills. This course will focus on improving different types of writing and the writing process itself. This course is taken along with and not in place of English. Students should be placed in this course according to their individual growth areas as documented through their IEP process.

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MATH SKILLS

Prerequisite: Math 8
Grade: 9-10 **1 Elective Credit**
Offered at MoHS, AHS

This class is designed for students with special needs working towards a Modified Standard Diploma. The course addresses the objectives found in the numeric assessment including early algebra skills, basic geometry, statistics, probability, and more.

NOTE: This course does not count for the required math credit.

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ALGEBRA 1, PART 1

Grades 9 –12 **1 Credit**

Part I is the first year course for Algebra I. This is an individualized and comprehensive course that covers the concepts and skills necessary to be successfully complete both parts of Algebra I. If a student with disabilities is eligible for credit accommodations, successful completion of this course will result in the student being awarded one (1) math credit.

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ALGEBRA 1, PART 2

Grades 9 –12 **1 Credit**

Part II is the second year course for Algebra I. This is an individualized and comprehensive course that covers the concepts and skills necessary to be successfully complete both parts of Algebra I. If a student with disabilities is eligible for credit accommodations, successful completion of this course will result in the student being awarded one (1) math credit, the second Math credit in this sequence.

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STUDY/ORGANIZATIONAL SKILLS

Grades 9-12 **1 Elective Credit**

Students are supported in reading, writing, spelling, grammar, language, and vocabulary. They will investigate effective methods of studying in order to improve their academic performance. A percentage of class time is devoted to applying these skills to core subjects.

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 11 7850
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SPECIAL (IEP) DIPLOMA / SELF-CONTAINED FUNCTIONAL CLASSES

These classes are designed to assist students in improving and maintaining a foundation of basic skills and knowledge applicable to practical life experiences. In addition, a heavy emphasis is placed on providing students with vocational training and employment skills. All or some of the following courses are taken to fulfill the requirements of the IEP diploma. Only special education students may earn elective credit for these courses.

COMMUNITY LIFE SKILLS

Grades 10-12
1 Elective Credit

Students are taken into the community to practice essential life skills that will be needed after high school. This model permits individuals to practice academic skills in a variety of community settings. Students are exposed to community services available after high school and are trained to use alternative methods of transportation.

..... 7814

FUNCTIONAL ENGLISH

Grades 9-12
1 Elective Credit

This course emphasizes language arts skills in reading, writing, and listening related to practical life and vocational experiences.

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continued

Course Descriptions

SPECIAL (IEP) DIPLOMA/ SELF-CONTAINED FUNCTIONAL CLASSES *(continued)*

COMMUNITY BASED INSTRUCTION PROGRAM (CBIP) Non-Credit

This program is designed for students with significant disabilities in need of intensive life-skills instruction provided in a self-contained setting. The focus is on functional academics, life skills, leisure skills, vocational skills, and social skills both at home and in the community. Instruction within this program may be supplemented with choices made from other areas of the program of studies. These choices should be related to the student interests and as deemed appropriate through the IEP process. Students successfully completing this program receive a Special (IEP) diploma. Enrollment in the Post-High Program is a possible extension of the CBIP program.

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FUNCTIONAL MATH Grades 9-12 1 Elective Credit

This course focuses on the basic operations of math in a consumer and life-skills setting. Review and remediation are provided in basic skills and money management is stressed.

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FUNCTIONAL SOCIAL STUDIES Grades 9-12 1 Elective Credit

This class focuses on local and national issues to prepare students to be positive and productive members of their communities. History, geography, and government are considered in combination.

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HEALTH / RECREATION Grades 9-12 1 Elective Credit

This course focuses on health related issues such as mental health, first aid, tobacco, alcohol, and drugs, diseases, family life, exercise, and leisure.

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PRACTICAL SCIENCE I Grades 9-12 1 Elective Credit

This class explores basic science topics in the areas of earth science, biology, and physics as they relate to the students.

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PRACTICAL SCIENCE II Grades 9-12 1 Elective Credit Offered at MoHS

This class explores basic topics in science as related to students. Areas of focus are biology and ecology.

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LEGAL ISSUES Grades 9-12 1 Elective Credit

This course provides students with the practical legal background one needs to function as an adult. It enables the young adult to foresee and avoid legal problems and to obtain professional help when needed.

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SERVE SAFE Grades 9-10 1 Credit Offered at AHS, MoHS

Students in this course will learn the basic requirements needed to work in a restaurant. At the end of the course, students who pass the "Serve Safe: Essentials Examination" will have an industry accredited endorsement that can help them obtain entry level employment in the food services industry.

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EDUCATION FOR EMPLOYMENT I Grades 9-12 1 Elective Credit

Students explore reasons for working, and examine their vocational interests and the role that attitudes and behaviors play in success or failure on the job. Students become familiar with the types of jobs available and the skills needed to perform them.

..... 7876

EDUCATION FOR EMPLOYMENT II Grades 9-12 1 Elective Credit

This course is a continuation of "Education For Employment I." It is designed to support students in jobs in the community. Increased emphasis is placed on the skills needed to maintain successful job performance and to improve vocational opportunities.

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WORK STUDY Grades 9-12 1 Elective Credit Pass/Fail

This program provides vocational training and transitional assistance. Vocational counseling, help with job training/ placement, and job monitoring and follow-up are provided for students identified as appropriate through the IEP process.

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COMMUNITY BASED WORK ADJUSTMENT Grades 11-12 1 Elective Credit Offered at MoHS

This course is designed to help students develop vocational skills and formulate plans to prepare for and obtain successful employment in the community. Individuals may work in Goodwill Stores and area businesses where real-world opportunities are offered to assess a person's abilities, interests, and job skills. On-site support is offered to improve vocational skills to improve job readiness for future vocational experiences. Participants are expected to be able to function independently in a small-to-medium sized group as well as to follow multi-step directions.

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Special Programs

Consider these **Special Programs** opportunities for enrichment, learning support, and expanded career and continuing education. When you consider a course or a program, think about the college and career readiness skills that it offers beyond what seems to be the career pathway. **The Partnership for 21st Century Skills has identified Learning and Thinking Skills for College and Career Readiness.** As much as students need to learn academic content, they also need to know how to be life-long learners and how to make effective and innovative use of what they know throughout their lives. Learning and Thinking Skills are comprised of: Critical Thinking and Problem Solving Skills; Communication Skills; Creativity and Innovation Skills; Collaboration Skills; Information and Media Literacy Skills; and Contextual Learning Skills

INDEPENDENT STUDY

Prerequisite: Teacher recommendation and proposal approval.

Grades: 9-12 **1 Credit**
Pass-Fail Grading

Independent study provides the opportunity for students to investigate a topic of personal interest that is outside the scope of current course offerings. Mentors for independent study can be school faculty or community members. Students may orient independent studies toward research, special experiences, or performance. Students submit a proposal to be considered for independent study. The proposal should include a commitment from a mentor and a plan for carrying out the independent study. Proposal information is available in the school counseling office or online at k12albemarle.org/instruction/gifted

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LAUNCH

(LANGUAGE ARTS UNITED WITH NUMBERS COMBINED WITH HISTORY)

Prerequisite: Teacher Recommendation
Grade: 9 **2 Elective Credits**
Offered at WAHS

LAUNCH is a program for rising 9th graders who have not passed either their reading or math Virginia Standards of Learning (SOL). Instructional support is provided in the core areas of reading, math, social studies, and science to assure success on the SOL test. Additionally students will focus on study skills.

..... 9812

TEACHING FELLOWS PROGRAM

Grades: 11-12 **1 Credit**
Offered at WAHS, AHS

This program is designed for juniors and seniors who are interested in working with students with disabilities. Each teaching fellow will be responsible for assisting a special needs student in an elective class. Responsibilities include not only assisting but also direct teaching and modifying assignments, when needed, to fit the student's needs in order to promote success or mastery. Teaching fellows become a mentor, teacher, and friend.

..... 9921

CORE+

Prerequisite: Teacher Recommendation
Grade 9–12 **1 Credit**

CORE+ is a full year, full-credit skills based class designed to help support student achievement in the core areas. Small class size allows individual attention to student needs in the areas of reading, vocabulary, spelling, writing skills, foundational math skills, and research skills. The course includes career, college and training exploration and some real-world experiences in those areas, as appropriate for the students in the class. These experiences may include college visits, completion of job applications, practice with interviewing, and strengthening of self-advocacy skills. CORE Plus is open to students in grades 9–12 and may be taken in consecutive years.

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AVID:

Advancement Via Individual Determination

AVID is a college preparatory support program for students wishing to enter a four-year college.

Students in AVID focus on college-level entry skills, academic survival skills, study skills, communication skills, and PSAT/SAT preparation. The writing process is an integral component of the program. Tutorial assistance is provided within the AVID class to support and extend students' efforts in rigorous course work.

Motivational activities, guest speakers, and field trips further enhance the course. Students must apply for the program through their school counselor.

AVID

Prerequisite: Desire to go to college
1 Credit

AVID 9 and 10 are designed with a focus on organization and academic skills to help students transition into high school and to be successful in rigorous college preparatory classes.

AVID 11 continues to build on academic skills, but the focus changes to college readiness. Students review career goals and begin to design education plans that involve college exploration, test preparation, and financial aid awareness.

AVID 12 begins the transition to post-secondary educational planning. Students focus on taking the SAT/ACT, exploring college, and completing college and financial aid applications. Students in AVID 12 must have completed a previous AVID class.

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10th 9816

11th 9817

12th 9818

AVID TUTOR

Prerequisite: Two successful years of AVID
1 Credit **Offered at MoHS, WAHS**

AVID Tutor is an elective course for students wishing to be tutors in the AVID elective program. Students will tutor 5-7 AVID students twice per week during the tutorial portion of the AVID elective class and assist the teacher in providing academic and organizational skills to students. The tutors are expected to be able to help in at least three academic subjects in which they have been successful at the Honors or Advanced level. Tutors will receive instruction and training using the inquiry method that encourages higher level thinking.

..... 9813

Course Descriptions

Career and Technical Education (CTE)

Albemarle County offers Career and Technical Education programs that prepare students to succeed in a world that is increasingly focused on highly skilled jobs. Students participate in a rigorous and relevant career and technical education program which leads to academic success and employment in a local and global economy.

Career and Technology Education (CTE) courses and career pathway programs lead to great opportunities across a variety of career studies and provide the sequential electives required for the standard diplomas.

Through the Virginia Department of Education's High School Industry Credentialing initiative, students can earn a credential or license by passing an approved exam. Students who successfully complete a career and technical education program and pass the accompanying state-approved credentialing exam may earn two verified credits to fulfill a graduation requirement. These students have a higher earning potential and ultimately will be more marketable.

Career Technical Education Graduation Requirements can be fulfilled with courses described in this section. The following pages list the courses available by program area. For additional information on course offerings, consult your school counselor.

CTE Sequential Electives

Students qualifying for a Standard Diploma must successfully complete two elective courses that are sequential (courses that provide a foundation for further education, training, or preparation for employment). A course may satisfy the requirement for fine arts or career technical education and for sequential electives.

BUSINESS AND INFORMATION TECHNOLOGY



Have you ever thought of starting your own business?
Do you like working in an office and using computers?
Do you enjoy dealing with the public?
Do you communicate effectively?

Diploma with Certificate	Certification or Associate degree	College degree plus
Customer Service Representative	Office Manager	Human Resources Specialist
Bookkeeper, Fiscal Tech.	Property Manager	Management Analyst
Medical Administrative Specialist	Administrative Assistant, Secretary	Chief Executive Officer (CEO)

These courses fulfill Fine Art/Career Technical Education graduation requirements. Unless otherwise indicated, all courses are offered at all high schools.

OFFICE SPECIALIST I, II, III

Grades 9–12 1 Credit each
Offered at MoHS

Students develop skills in areas including word processing, office procedures, and record management. Communication skills are developed through reading, writing, and speaking activities focused around office and business scenarios. Students completing the Office Specialists sequence will have developed the skills necessary to be a competitive applicant for jobs set in an office environment.

Students may complete Office Specialist III through a supervised employment arrangement with local businesses. Students choosing the Office Specialist III work a minimum average of 15 hours on the job each week.

Assistance is offered in locating suitable work situations, with emphasis placed on the selection of a job that provides training to help the student reach his/her career goal.

Industry Certification/Credentialing Exam may be required at the end of this course.

I	6740
II	6741
III	6742

PRINCIPLES OF BUSINESS AND MARKETING

Grades 9-10 1 Credit
Offered at MoHS, WAHS

Students discover the roles of business and marketing in the free enterprise system and the global economy. Basic financial concepts of banking, insurance, credit, inheritance, taxation, and investments are investigated to provide a strong background as students prepare to make sound decisions as consumers, wage earners, and citizens. The real-world impact of technology, effective communication, and interpersonal skills is evident throughout the course. This course also supports career development skills and explores career options.

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BUSINESS MANAGEMENT

Grades 9–12 1 Credit

This is a foundation course for students to explore the roles of business and marketing in the free enterprise system and the global economy. Students receive instruction in developing communication and interpersonal skills, making consumer choices, and developing employability skills.

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Career and Technical Education

ECONOMICS AND PERSONAL FINANCE*

Grades 11-12 1 Credit

Students learn how to navigate the financial decisions they must face and to make informed decisions. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship and career success. Students will also explore entrepreneurship as they learn the skills needed to plan, organize, manage, and finance a small business.

* Graduation requirement for students entering the 9th grade in 2011 and beyond.

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Virtual 6123V

PRINCIPLES OF MANAGEMENT, BUS 200



Prerequisite: Bus Mgmt. recommended
Grade 11-12 1 Credit
Offered at AHS, MoHS

This course offers instruction in management and management functions including planning, organizing, directing, and controlling. Students will apply management principles to realistic situations managers encounter as they attempt to achieve organizational objectives.

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APPLIED MANAGEMENT PRINCIPLES, BUS 202



Prerequisite: Principles of Management
Grade 11-12 1 Credit
Offered at AHS

This course focuses on management practices and issues and may use case studies and/or management decision models to analyze and develop solutions to management problems.

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BUSINESS LAW I / BUS 241



Prerequisite: Qualifying Score on VCCS or SAT
Grades 11-12 1 Credit

Offered at MoHS

Develops a basic understanding of the US business legal environment. Introduces property and contract law, agency and partnership liability and government regulatory law. Students will be able to apply these legal principles to landlord/tenant disputes, consumer rights issues, employment relationships and other business transactions.

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BUSINESS COOPERATIVE EDUCATION (CO-OP)

Prerequisite: Concurrent enrollment in a business education class other than a foundation class

Grades 11-12 1 Credit

Students who have a career objective in business can enroll in a cooperative education course. Credit is given to students who are in a paid, supervised part-time work experience. A coordinator along with the employer provide the student with an individualized training plan. The student must be employed for the duration of the course and must abide by the Cooperative Training Agreement.

..... 6105

DESIGN, MULTIMEDIA, AND WEB TECHNOLOGIES I and II

Grades 9-12 1 Credit each

This course is a two year sequence designed to develop students' skills in Graphic, Print, and Web Design. Students will develop proficiency in using desktop publishing software. Students will create advanced Web sites (individually and in teams) using both HTML code and web authoring software. In addition, students learn software to populate their web pages with eye-catching graphics and animations. Students will also explore, "cyberethics." Students will be required to present many of their projects to strengthen communication skills, which will enhance their employment or further education.

Industry Certification/Credentialing Exam may be required at the end of this course.

I 6200
II 6631

WEB DESIGN I / ITD 110



Prerequisite: Design, Multimedia, and Web Technologies II, Successful completion of the VCCS Placement Test

Grades 11-12 1 Credit
Offered at WAHS, MoHS

Web Design stresses a working knowledge of web site design, construction, and management using HTML or XHTML and includes headings, lists, links, images, image maps, tables, and forms.

..... 6633

WEB DESIGN II /ITD 210



Prerequisite: PVCC Web Design I
Grade 12 1 Credit

Offered at WAHS, MoHS

Using web editor software, this course incorporates advanced techniques in web site planning, design, usability, accessibility, advanced site management and maintenance.

..... 6634

MICROSOFT® INFORMATION TECHNOLOGY ACADEMY

Students participating in the Microsoft IT Academy (MS IT) receive hands-on experience with the latest Microsoft software and industry approved curriculum. With the opportunity to earn Microsoft Certifications that are widely recognized by employers, students will gain an edge in today's competitive job market.

MS IT: I

Grades 9-12 **1 credit**
Offered at MoHS and AHS

This course prepares students to earn Microsoft Office Specialist (MOS) certifications in Word, PowerPoint, and Outlook. Students will apply real-world problem solving strategies while creating documents, developing multimedia presentations, and exploring advanced communication methods.

..... **6613**

MS IT: II

Prerequisite: MS IT: I
Grades 9-12 **1 credit**
Offered at MoHS and AHS

This course prepares students to earn their Microsoft Office Specialist Master (MOS Master) certification. This industry recognized certification validates overall proficiency and deep expertise of Microsoft Office programs and requires four exams: Word Expert, Excel Expert, PowerPoint, and either Outlook or Access. Students will develop expertise in a hands-on learning environment guided by official Microsoft IT curriculum.

..... **6614**

COMPUTER SCIENCE I and II

Prerequisite: Algebra I

Grades 9-12 **1 Credit**

Students explore computer concepts, use logic procedures, and implement programming procedures using one or more programming languages. In addition, HTML or JavaScript may be used to create dynamic Web pages.

Industry Certification/Credentialing Exam may be required at the end of this course.

I **6640**
II **6641**



PRINCIPLES OF INFORMATION SYSTEMS / ITE 120

Prerequisite: Satisfactory VCCS Placement Test score and PVCC Application

Grades 10-12 **1 Credit**

Offered at MOHS

This course provides an overview of the fundamentals of computer information systems design and implementation with a focus on the role of computers in today's business, and includes an introduction to computer ethics and security. Students will have an opportunity to work hands-on with spreadsheets, databases, and web design applications.

..... **6669**

COMPUTER SCIENCE A Advanced Placement

Prerequisite: Algebra II or Programming

Grades 11-12 **1 Credit**

Offered at AHS, WAHS

This course covers object-oriented programming methodology with an emphasis on problem solving and algorithm development and is meant to be the equivalent of a first-semester course in computer science. It also includes the study of data structures and abstraction.

Students are expected to take the AP exam. The exam fee is approximately \$89 per test.

..... **3219**

INTRODUCTION TO DIGITAL MUSIC

Prerequisite: None

Grades 9-12 **1 Credit**

Offered at MoHS

In this course, students work collaboratively and independently on digital media projects with a focus on electronic music. Students learn the basic principles of a wide range of topics, including songwriting, midi composition, video editing, business and marketing, networking, etc. Students in this course independently design creative projects throughout the semester and leave with a fundamental understanding of how to build, manage, and utilize a modern music studio.

..... **6162**

DIGITAL MUSIC COLLECTIVE

Prerequisite: None

Grades 9-12 **1 Credits**

Offered at MoHS

In this course, students work collaboratively to develop a portfolio of digital music projects. Students continue to develop songwriting skills and work independently to create projects that involve a wide range of digital media based arts.

..... **6163**

MUSIC INDUSTRY TECHNOLOGY



Grades 11, 12 **2 Credits**
Offered at CATEC **PM only, no English**

Working in conjunction with the Music Resource Center, this course is designed to provide in-depth instruction on music industry elements. Students will also be exposed to musical theory, computer use, and instrument understanding and function. Projects will include recording of instruments, arranging recording tracks plus incorporating advertising and marketing aspects in these projects. Students will study the possible careers available in the field.

..... **8441**



**Indicates
PVCC Dual
Enrollment**

TECHNOLOGY EDUCATION

These courses fulfill Fine Art/Career Technical Education graduation requirements.

Unless otherwise indicated, all courses are offered at all high schools.

BASIC TECHNICAL DRAWING

Grades 9-12 1 Credit

Technical Drawing is an introductory course to familiarize students with various drafting practices, resource materials, use of the drawing board, and the Computer-Aided-Drafting (CAD) system. The course covers the important aspects of the application of drafting principles of typical engineering drawings and design problems. Fees apply for this course.

..... 8435

ARCHITECTURAL DRAWING

Prerequisite: Technical Drawing
Grades 10-12 1 Credit

Students learn about the principles of architecture and increase understanding of drafting practices, working drawings, and construction techniques. Students use Computer-Aided Drafting (CAD) programs and established standards or codes to prepare plans for presentation. This course is recommended for all students, especially those interested in pursuing a career or major in architecture, interior design, or homebuilding. Completion of this course may prepare the student for industry certification.

Fees apply for this course.

..... 8437

ARCHITECTURE II

Prerequisite: Basic Technical Drawing and Architectural Drawing
Grades 11-12 1 Credit
Offered at WAHS

This is a 100% computer assisted drawing course. Students learn to customize a menu; to adjust dimensioning variables; and to use commands to create, edit, dimension, and plot to scale. They also study and duplicate commercial blueprints. This course is recommended for all students, especially those interested in pursuing an architecture career or major.

Industry Certification/Credentialing Exam may be required at the end of this course.

Fees apply for this course.

..... 8492

ARCHITECTURAL DRAWING / ARC 121 Architectural Drafting I



Prerequisite: Technical Drawing, VCCS Test, and PVCC application

Grades 10-12 Offered at AHS
1 Credit (3 PVCC College Credits)

Students learn more about the principles of architecture and increase understanding of drafting practices, working drawings, and construction techniques. Students use Computer-Aided Drafting (CAD) programs and established standards or codes to prepare plans for presentation. This course is dual enrolled with PVCC as ARC 121 Architectural Drafting I. ARC 121 introduces techniques of architectural drafting including lettering, dimensioning, and symbols.

This course requires production plans, sections, and elevations of a simple building. Students study common reference material and the organization of architectural working drawings. This course requires development of a limited set of working drawings, a site plan, related details, and pictorial drawings. Students will earn 3 college credits that will transfer to the two year Associate's Degree at PVCC. These credits will not transfer to the four year college/university.

Industry Certification/Credentialing Exam is required at the end of this course.

Fees apply for this course.

..... 8654

ENGINEERING DRAWING / DR 140 Technical Drawing



Prerequisite: Technical Drawing, VCCS Test, and application

Grades 10-12 Offered at AHS
1 Credit (3 PVCC College Credits)

This course provides students the opportunity to learn the skills and concepts required for further engineering education and/or employment in the engineering field through the use of Computer-Aided Drafting (CAD) programs. This course is dual enrolled with PVCC as DR 140 Technical Drawing. DR 140 enhances the principles learned that are related directly to the field of drafting and design; gives a more in-depth exposure to detail and working drawings, dimensioning, tolerancing, and

conventional drafting practices; teaches CAD modeling; and may include parametric modeling. Students will earn 3 college credits that will transfer to the two year Associate's Degree at PVCC. These credits will not transfer to the four year college/university.

Industry Certification/Credentialing Exam is required at the end of this course.

Fees apply for this course.

..... 8655

ENGINEERING DESIGN / EGR 115:



Prerequisite: Qualifying Score on VCCS or SAT, Concurrent: Math Analysis

Grades 10-11 1 Credit

Offered at MoHS

This course allows students to examine systems, the interaction of technology and society, ethics in a technological world, and the fundamentals of modeling while applying the engineering design process to areas of the designed world. Students will participate in hands-on projects in a laboratory setting as they communicate information through team-based presentations, proposals, and technical reports. Students will learn the principles of orthographic projection and multiview drawings. Other topics will include descriptive geometry with relationships of points, lines, and planes. Sectioning, dimensioning, and computer graphic techniques will be introduced.

..... 8450

ENGINEERING RESEARCH I

Prerequisite: Algebra II; Physics (concurrently)

Grades 9-12 1 Credit

Offered at WAHS

Students will develop strong research and analytical skills through hands-on experiences. Experiments will be in a variety of science disciplines with a focus on data collection, validation and analysis. A project suitable for a science/engineering event will be required for first semester. The second semester will explore engineering principles and techniques.

..... Hon 8454

INTRODUCTION TO ENGINEERING / EGR 120:



Prerequisite: Introduction to Engineering, Concurrent: Calculus A/B, Qualifying Score on VCCS or SAT

Grades 11-12 1 Credit Offered at MoHS

This course allows students to examine systems, the interaction of technology and society, ethics in a technological world, and the fundamentals of modeling while applying the engineering design process to areas of the designed world. Students will participate in hands-on projects in a laboratory setting as they communicate information through team-based presentations, proposals, and technical reports. This course is dual enrolled with PVCC as EGR 120 Introduction to engineering. EGR 120 is an introductory level engineering class designed to introduce students to ideas, concepts, and methods universal to all disciplines of engineering. Engineering design, analysis, and teamwork will be emphasized through a semester-long project involving the Lego® Mindstorms Robot. In addition to problem solving, this class will emphasize important skills that will be useful to students throughout their careers including technical documentation, presentation skills, and the use of software-based computational tools for solving engineering problems.

..... 8451

ROBOTICS AND AUTOMATION

Prerequisite: Algebra I, Co-Requisite Geometry

Grades 9-12 1 Credit Offered at AHS, WAHS

Robotics and Automation is a lab-based course that uses a team-based approach to introduce the basic concepts of robotics, construction and programming of autonomous and semi-autonomous robots. The course will focus on careers in engineering, robotics, programming and game design. Course instruction will primarily be tied to lab experiments, as students will work collaboratively to build and test increasingly more complex robots. Students will compete at various robotic competitions primarily using the VEX and NXT robotic platforms

..... 8429

MICRO POWER SYSTEMS

Grades 9-12 1 Credit Offered at MoHS

Development of portable and sustainable micro power systems for a variety of economic development support activities. Engineering. Advanced Manufacturing. Fuel Science and Environmental Sciences are all involved .

..... 8018

DIGITAL IMAGING TECHNOLOGY I and II

Grades 9-12 1 Credit Offered at AHS, MoHS

Digital Imaging Technology is a course in which students study the development of photography as a communication medium and its evolution into the digital realm. Students will learn to use specialized editing software such as Photoshop to manipulate images. Course topics include: elements of design; digital photo technique; differences between computer technology imaging and print imaging; how various graphic activities affects web imaging; video, sound and animation design; and storage and memory issues.

Industry Certification/Credentialing Exam may be required at the end of this course.

Fees apply for this course.

I..... 8456
II..... 8459

DIGITAL IMAGING TECHNOLOGY III, IV

Prerequisite: Digital Imaging I and II
Grades 10-12 1 Credit Offered at AHS, MoHS

This course is designed for students who want an in-depth knowledge of digital photography, design, and the Adobe Creative Suite. Emphasis will be placed on creating a digital portfolio. Students will assist in designing their own projects which align to goals and competencies for learning.

Fees apply for this course.

III..... 8183
IV..... 9185

GRAPHIC COMMUNICATIONS

Grades 9-12 1 Credit Offered at AHS

Graphic Communications deals with printed images such as newspapers, books, printed T-shirts, signs, photographs, and stationery. The course includes design/ layout composition, electronic publishing, and computer graphics. Students use a variety of processes and equipment to produce visual projects in printed graphics, similar to those produced by the graphic arts industry.

Fees apply for this course.

..... 8458

TELEVISION PRODUCTION I, II, III and IV

Grades 9-12 1 Credit each

Students develop a basic understanding of the television industry with an emphasis on video production. Working individually and in teams, students produce various video projects both in and outside the studio setting. Students develop skills in equipment handling, filming techniques, lighting, editing, script writing, studio operations, and other skills related to video production. Students receive basic instruction in electronics to gain a working knowledge of studio equipment.

Industry Certification/Credentialing Exam may be required at the end of this course.

I..... 8688
II..... 8689
III..... 8690
IV..... 8692

FILMING AND DIGITAL VIDEO EDITING

Prerequisites: TV Production I or Digital Imaging Technologies

Grades: 10-12 1 Credit Offered at MoHS

Students learn basic camera movements, operations, and shots used in studio shooting; use and implementation of the action line; care and maintenance of the digital video camcorder; the importance of video logs; interpretation of storyboards into camera shots, and movements and basic editing techniques. This course covers video editing techniques using Final Cut Pro, After Effects, Garage Band, Motion, and more to create short films and videos.

..... 8683

GEOSPATIAL TECHNOLOGY I and II

Prerequisites: Successful completion of Algebra I

Grades: 10-12 **1 Credit**

The Geospatial Technology program introduces students to Geographic Information Systems (GIS) and Global Positioning Systems (GPS) technology. Students learn to integrate these technologies to collect, analyze, and display a variety of data to solve real life problems. Students are trained in the latest ESRI ArcMap software in a variety of scenarios.

Classes have the opportunity to partner with James Madison University, allowing students to earn transferable college credit from JMU through its "Geospatial Semester" program*. In these classes there is a focus on learning and applying the software through a variety of local projects that are connected with the community.

Industry Certification/Credentialing Exam may be required at the end of this course.

Note: A JMU tuition fee applies to students who want to earn college credit for Geospatial I.

I 8430
II 8412

* Sophomores ineligible for JMU credit.

CAREER CONNECTIONS

JUNIOR/SENIOR INTERNSHIP PROGRAM

Grade 11-12 **1 Credit**

The Junior/Senior Internship program is designed to support a student's long-range education and career goals. This program provides the opportunity to experience "first-hand" a particular career or career field by interning with professionals in the community. Students enhance their academic and technical skills as well as become more informed about certain career field expectations and requirements before entering college and/or the workforce. All students complete the application packet. See your high school counselor for more information.

..... 9072

VIRGINIA TEACHERS FOR TOMORROW I & II SDV Orientation To Teaching As A Profession



Prerequisite: Successful completion of the VCCS placement test.

Grades 11-12 **Offered at WAHS**
Credit: 1 credit (3 college credits for Teachers For Tomorrow I)

This course introduces students to a career in teaching and education by allowing students to experience the components of learning, the school environment, and the classroom teaching environment.

Virginia Teachers for Tomorrow aims to attract high school juniors and seniors to the field of education through participation in a rigorous, world-class curriculum and field experiences related to teaching. As part of that professional experience, students will be required to create a personal portfolio.

Students will earn 3 college credits for Teachers For Tomorrow I that will transfer to the two year Associate's Degree at PVCC. Transfer of credit to a four-year college/university cannot be guaranteed.

This state program requires students to submit an application and recommendations and to meet specific criteria. See your school counselor or Teachers for Tomorrow instructor for more information.

I 9062
II 9067

(Level II is not a PVCC dual-enrollment course)



INTERNSHIPS:

Typical internships can be developed in areas of:

- medicine
- architecture
- law
- law enforcement
- television production
- journalism
- finance
- accounting
- veterinary medicine
- business management
- computer technology
- engineering,
and many more

Interested in Teaching?



See the Special Programs Section (page 19) for information on the Teaching Fellows Program offered at AHS and WAHS for Juniors and Seniors interested in working with students with disabilities.

MARKETING



Student Organizations that Focus on CTE

There are several co-curricular student organizations available to all students taking courses in Career and Technical Education. These organizations are designed to complement, supplement, and strengthen the instructional program. Students participate in local, state, and national activities and in competitive events. Students learn to work as part of a team and to develop leadership ability, problem solving skills, and skills for life. Students in the Career and Technical Education programs are expected to take advantage of the opportunities available to them through these student organizations.

These organizations include:

- FBLA—Future Business Leaders of America;
- FCCLA—Family, Career and Community Leaders of America;
- DECA—Distributive Education Clubs of America;
- TSA—Technology Students Association;
- HOSA—Health Occupation Students of America; and
- SkillsUSA



Do you enjoy providing a service to others?
 Can you write a good advertisement?
 Do you like helping people find solutions to their problems?
 Are you good at persuading people to make purchases and convincing people to do things?
 Are you a creative person?

Diploma With Some Training	Certification Or Associate Degree	College Degree Plus
Vehicle Sales	Real Estate Sales Agent	Sales Engineer, Buyer
Sales Associate/ Assistant Manager	Sales Representative, Store/Regional Manager	Marketing Manager, Public Relations Representative
Telemarketer	Auctioneer, Merchandise Display Artist	Market Research Analyst

These courses fulfill Fine Art/Career Technical Education graduation requirements. Unless otherwise indicated, all courses are offered at all high schools.

MARKETING I (co-op available)

Grades 10-12 1 Credit (2 if taking Marketing Cooperative Education)

Offered at AHS, WAHS

Students examine activities in marketing and business that are important for success in marketing employment and postsecondary education. This course reinforces mathematics, science, English, and history/social science Standards of Learning (SOL's). Computer/technology applications and DECA activities enhance the course. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events. The cooperative education method is available for this course (see note below).

Industry Certification/Credentialing Exam may be required at the end of this course.

Marketing I 8120

MARKETING II (co-op available)

Prerequisite: Successful completion of Marketing I

Grades 11-12 1 Credit (2 if taking Marketing Cooperative Education)

Offered at AHS, WAHS

Students build on knowledge gained in a prior marketing course. Students participate in supervisory management activities. Students will prepare for advancement in marketing careers and postsecondary education. This course reinforces mathematics, science, English, and history/social science Standards of Learning (SOL's). Computer/technology applications and DECA activities enhance the course. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events. The cooperative education method is available for this course (see note below).

Industry Certification/Credentialing Exam is required for all students at the end of this course.

Marketing II 8130



The cooperative education method combines classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

INTERNET MARKETING THROUGH SOCIAL AND NEW MEDIA

Grades 10-12 **1 Credit**
Offered at AHS

Students receive an introduction to marketing functions and the business plan to study internet marketing's role in the global economy. Students gain knowledge of the tools and techniques used in Internet marketing and learn how to design a web site. Students explore how new media is being used to create relationships, market products and services, engage key audiences, create brand awareness, and drive loyalty. This course covers techniques such as social networking, wikis, widgets, blogging, podcasting, web casting, social book marketing, mobile marketing, and mash-ups. Students explore ethical, legal, security aspects and prepare for a career in Internet marketing. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course. Computer/technology applications supporting this course are studied.

..... **8126**

SPORTS, ENTERTAINMENT, AND RECREATION MARKETING

(co-op available)
Grade 10-12 **1 Credit**

This introductory course helps students develop a thorough understanding of fundamental marketing concepts and theories as they relate to the sports, entertainment, and recreation industries. The course supports career development skills and explores career options. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course. The cooperative education method is available for this course (see note below).

Industry Certification/Credentialing Exam may be required at the end of this course.

..... **8185**

SPORTS, ENTERTAINMENT, AND RECREATION MARKETING II

(co-op available)
Prerequisite: Sports, Entertainment, and Recreation Marketing, or Marketing I
Grade 11-12 **1 Credit**

Students will build on prior knowledge of sports, entertainment, and recreation marketing. This course focuses on the principles of management and planning support by research, financial, and legal concepts. Academic skills (mathematics, science, English, and history/social science)

related to the content area a part of this course. Computer/ technology applications supporting the course are studied. The cooperative education method is available for this course (see note at below).

Industry Certification/Credentialing Exam is required for all students at the end of this course.

..... **8178**

FASHION MARKETING I

Grades 10-12 **1 Credit**
Offered at AHS

In this specialized course, students gain basic knowledge of the apparel and accessories industry and skills necessary for successful employment in the apparel businesses. Students develop general marketing skills necessary for successful employment in fashion marketing. Personal selling, sales promotion, purchasing, physical distribution, market planning, and product/service technology as well as academic skills (mathematics, science, English, and history/social science) related to the content are part of this course. Computer/technology applications supporting this course are studied. The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the year.

..... **8140**

FASHION MARKETING II

Grades 10-12 **1 Credit**
Offered at AHS

Students gain in-depth knowledge of the apparel and accessories industry and skills important for employment in marketing of apparel businesses. They develop advanced skills unique to fashion marketing and advanced general marketing skills applied to the apparel and accessories industry. Professional selling, sales promotions, buying, merchandising, marketing research, product/service technology, and supervision as well as academic skills related to the content are part of this course. Computer and technology applications are available for this course. The cooperative education method is available for this course. Students combine classroom instruction and supervised on the job training in an approved position with continuing supervision throughout the school year.

..... **8145**



**Interested
in Fashion?
See Fashion
Design Course
on page 30**



These courses fulfill the Fine Art/Career Technical

Education graduation requirement. Unless otherwise indicated, all courses are offered at all high schools.

A Career and Technical Education Completer (CTE Completer) is a student who completes a CTE concentration. A concentration is a coherent sequence of courses (courses totaling 2 credits) completed by a student in a specific career area or specialization and who meets all high school graduation or GED requirements.



Indicates this course is offered at CATEC

HEALTH AND MEDICAL SCIENCE



Do you like to care for sick people or help them stay well?
 Are you interested in diseases and in how the body works?
 Do you like to provide a service to people?
 Do you like science and lab experiments?

Diploma with some training	Certification or Associate degree	College degree plus
Dental Assistant	Dental Hygienist	Dentist
Home Health Aide, Nurse Aide	LPN, Registered Nurse, EMT	Physician
Most careers in Health Science require certification or college degrees	Surgical Technician, Biotechnology Technician	Radiation Therapist
	Fitness Trainer, Physical/Occupational Therapy Assistant	Physical/Occupational Therapist, Athletic Trainer

DENTAL ASSISTANT



1 Year Program

Prerequisites:

C or better in Biology recommended.

Grades: 11, 12 2-3 Elective Credits*

Offered at CATEC

This one-year program prepares students to perform all the tasks of a Dental Assistant. These include taking x-rays, preparing materials for procedures, making impressions, removing sutures, placing topical anesthetics, and making diagnostic study models. Dental Assistant students also study maintenance of patient records, disinfectant of instruments and equipment, and preparation of patients for dental treatment. This program will give students a foundation to pursue a Dental Hygienist post-secondary degree through a two- or four-year college.

Certifications: Dental Assisting Assessment (NOCTI), Radiation Health and Safety, Infection Control

*2 elective credits taken in conjunction with a CATEC English class.

Verified credits: 1-2 (completer, certification)

..... **8328**

EMERGENCY MEDICAL TECHNICIAN & FIREFIGHTING



1 Year Program

Firefighting

1.5 Elective Credits

EMT

1.5 Elective Credits

Grades: 11, 12

Offered at CATEC

Prerequisites: Must be 16 or older by start of school & 11th or 12th grader academically. Cumulative GPA 2.0 recommended. C in Biology (EMT). Other requirements as assigned by the Virginia Office of Emergency Medical Services.

First semester instruction includes fire department organization and procedures. Supervised internships are provided with fire and rescue and are managed by the teacher. The second semester focuses on the role and responsibilities of emergency rescue workers. Course requires strenuous physical activity & occasional exposure to smoke-filled environments.

Certifications: EMT Basic, Firefighter I
 Verified Credits: 1-2 (certification, completer)

Firefighting. 8705

EMT 8334

HEALTH AND MEDICAL SCIENCES I

Prerequisites: Sciences at grade level or above
Grades 9–12 **1 Credit**
Offered at MoHS, AHS

This is a survey course covering healthcare and the healthcare system. Students are supported in understanding their interests and strengths with a goal of matching these to a particular health job/career.

Industry Certification/Credentialing Exam may be required at the end of this course.

To be a CTE Completer and fulfill sequential elective requirement (2 credits), a student must take Health and Medical Sciences.

..... 8302

MEDICAL TERMINOLOGY/ HLT 141


Grades: 11–12 **1 Credit**
Offered at MoHS, AHS

This course is designed to help students learn health care language. Topics are presented in order beginning with each body system's anatomy and physiology and progressing through pathology, diagnostic procedures, therapeutic interventions, and finally pharmacology. Students learn concepts, terms and abbreviations for each topic.

Note: The student is responsible for purchasing the college textbook associated with the class

..... 8383

PHARMACY TECHNICIAN

1 Year Program 
Prerequisites: C or better in Biology recommended.
Grades: 11–12 **2-3 Elective Credits**
Offered at CATEC


This one-year program will prepare students to perform all the tasks of a Pharmacy Technician. Students also study safety procedures, medication and inventory control, maintaining records, preparing labels, and processing insurance claims.

This program prepares students to successfully complete the Certified Pharmacy Technician (CPhT) examination.

Certifications: Virginia Pharmacy Technician
Verified Credits: 1-2 (certification, completer)

..... 8305

NURSE AIDE

1 Year Program 
Prerequisites: C or better in Biology recommended. Ability to work and socially interact with people in a public environment.

Grades: 11–12 **3 Elective Credits**
Offered at CATEC, no English

This course emphasizes study of nursing occupations, body systems and disorders, basic nursing skills, study of human growth and development, first aid, nutrition, simple body structure, medical terminology, microbes and disease, vital signs, and patient care. Clinical experience is provided in nursing homes and hospitals. Community service outreach projects are required and organized by students.

Certifications: Certified Nursing Assistant (I)
Verified Credits: 1-2 (certification, completer)
Fees apply for this course.

Nurse Aide I 8360
Nurse Aide II 8362

SPORTS MEDICINE I

Prerequisite: Biology I recommended
Grades 9-12 **1 credit**
Offered at AHS, MoHS

This course provides students with the basic concepts and skills required for careers in sports medicine such as: athletic training, physical therapy, medical physician, exercise physiology, and occupational therapy. It introduces students to topics such as injury prevention, nutrition, first aid/CPR/AED, exercise physiology, and biomechanics. Students study basic human anatomy and physiology, medical terminology, legal and ethical issues in sports medicine, and career preparation. Course competencies have been constructed so as not to go beyond the professional scope of aide/assistant level. Mastery of the material in this course would provide students with a strong background should they wish to pursue certification in areas such as first aid, CPR, AED, and/or personal trainer.

..... 7686

SPORTS MEDICINE II

Prerequisite: Sports Medicine I
Grade 10-12 **1 credit**
Offered at AHS, MoHS

This course continues the studies of "Sports Medicine I." Students learn advanced concepts and skills required for careers in sports medicine.

..... 7687



Interested in Health and Medicine?

See the new Health and Medical Sciences Academy in the "Specialty Centers" section on page 10.



Interested in Sports Medicine?

There is also a "Introduction to Sports Medicine" course offered at WAHS, see the "Physical Education and Health" Section (pages 46-49)



Indicates PVCC Dual Enrollment

CULINARY ARTS I

Grades 9–12 **1 Credit**
Offered at AHS, MoHS

This course focuses on careers in the food service industry. Study will include different types of food preparation, food science and safety, nutrition, service styles, etiquette, and how culture and environment influence foods eaten. Industry Certification/Credentialing Exam may be required at the end of this course. Fees apply for this course.

..... **8252**

CULINARY ARTS II



Prerequisite: Culinary Arts I
Grades 11-12 **1 credit**
Offered at AHS, MoHS

Provides students an opportunity to refine skills in serving, dining room management, and other skills learned in Culinary Arts I. Students prepare for occupations such as chef/cook, baker/pastry helper, pastry decorator, hospitality worker, dietetic aide/assistant, food demonstrator, and entrepreneur. Critical thinking, practical problem solving, and entrepreneurship opportunities within the field of culinary arts are emphasized. Teachers highlight the basic skills of mathematics, science and communication when appropriate in content.

..... **8277**

INTERNATIONAL FOODS

Grades 9-12 **1 Credit**
Offered at MoHS

In addition to teaching basic food preparation skills, the class identifies origins of foods; explains how climate, geography, and culture affect cuisine; and prepares foods from six main regions of the world.

Industry Certification/Credentialing Exam may be required at the end of this course. Fees apply for this course.

..... **8271**

INTRODUCTION TO CULINARY ARTS



Prerequisites: Students must provide their own transportation to and from their work-study site if applicable.

Grades 10-12 **3 Credits**
Offered at CATEC AM only, no English

This class is designed to introduce students to career options in the food service industry as well as to provide instruction in culinary techniques. This entry-level course provides an overview of the culinary industry and career options through work-study placement. Class time is used for teaching new concepts, reinforcing important skills, and assisting Culinary Arts II students with catering activities. Students who are successful in this class may have the option to take Culinary Arts I the following year.

..... **8250**

CULINARY ARTS I & II



2 Year Program
2-3 Elective Credits*

Grades: 10-12 **Offered at CATEC**

Culinary Arts prepares students to enter employment in food service occupations. Instruction focuses on sanitation, nutrition, food preparation, catering, purchasing, and inventory control in addition to food presentation and service. Our learning emphasis is academic, hands-on, and includes community-based service learning.

Certifications: Commercial Foods Assessment (NOCTI); Serve Safe Certification

Verified Credits: 1-2 (certification, completer)

*2 elective credits taken in conjunction with a CATEC English class.

I: **8521**

II: **8522**

FASHION DESIGN

Grades 9–12 **1 Credit**
Offered at AHS, MoHS

Students prepare for a career in the fashion industry by learning to use basic construction. Focus is on how to use the principles of color and design to produce original textiles. This course explores the individual careers within the fashion design, manufacturing, and merchandising industry.

Industry Certification/Credentialing Exam may be required at the end of this course.

Fees apply for this course.

..... **8247**

EARLY CHILDHOOD DEVELOPMENT

Grades 9 –12 **1 Credit**
Offered at AHS

This course focuses on the principles of child growth and development. Students use these principles to develop learning experiences for children in a safe and healthy environment. Careers related to the child care industry are emphasized.

Industry Certification/Credentialing Exam may be required at the end of this course.

Fees apply for this course.

..... **8283**



**Interested in Fashion?
 See “Fashion Marketing”
 Courses on page 27.**



COSMETOLOGY I AND II



2 Year Program

Prerequisites: C or better in Biology recommended

Grades: 11–12 **Offered at** CATEC

Cosmetology I: 2-3 Elective Credits*

Cosmetology II: 2-3 Elective Credits*

Students in this program are eligible to take their State Board examination after successfully completing the two-year course. Students will gain theory and practical knowledge through instruction and lab participation. First-year students will participate in a job shadowing program and second-year students during their second semester will participate in an internship two days a week.

Certifications: State Board of Cosmetology License

Verified Credits: 1-2 (certification, completer)

College Credits: NA

Fees apply for this course.

*2 elective credits taken in conjunction with a CATEC English class

I 8527

II 8528

BARBERING I & II



2 Year Program

Grades: 11–12 **Offered at** CATEC

Barbering I 2-3 Elective Credits*

Barbering II 2-3 Elective Credits*

Students in this program are prepared to take the Virginia Barber examination in order to become licensed practitioners. Students gain daily practical experience working on other students and manikins. During the second year, students have the opportunity to provide services to patrons in a clinical setting. This lab is open to the public by appointment. Students also have the opportunity to do internships in local barbershops. Good reading skills and a strong science background are recommended. Must be able to work independently.

Fees apply for this course.

Certifications: State Board License

Verified Credits: 1-2 (certification, completer) **College Credits:** NA

*2 elective credits taken in conjunction with a CATEC English class

I 8747

II 8748



*Indicates this course
is offered at CATEC*



Do you like working with tools, machinery, and computers?
 Do you enjoy seeing the concrete result of your work?
 Do you enjoy designing and problem solving?

Diploma with some training	Certification or Associate degree	College degree plus
Forklift Operator	Laser technician	Industrial Production Manager
Welder	Production Planner	Quality Assurance Specialist
Quality Control Technician	Electronics Technician	Environmental Engineer

AUTO BODY TECHNOLOGY I & II



2 Year Program Offered at CATEC

Prerequisites: Good eye-hand coordination, manual dexterity, and physical strength and stamina recommended.

Grades 10-12

I 2-3 Elective Credits*

II 2-3 Elective Credits*

Students in this program are prepared for careers in this field through the use of the latest technologies and state of the art equipment. Throughout the program students gain knowledge of classroom and shop experience by working on vehicles. Selected students may be eligible for work experiences at local repair facilities.

Successful completion of the two-year Auto Body program can reduce the two years of experience required for Automotive Service Excellence (ASE) certification by one year.

This course is not recommended for individuals with respiratory or allergy problems.

Certifications: Auto Body Assessment (NOCTI)

Verified Credits: 1-2 (certification, completer)

College Credits: NA

* 2 elective credits taken in conjunction with a CATEC English class.

I 8679

II 8680



Indicates this course is offered at CATEC

AUTOMOTIVE SERVICE TECHNOLOGY I & II



2 Year Program Offered at CATEC

Prerequisites: Algebra I recommended, ability to read and understand highly technical information, use of sophisticated equipment, and ability to work independently and in groups.

Grades 11-12

I and II 2-3 Elective Credits*

Automotive Service Technology is a two-year program for students who wish to become automotive technicians. The program is dual enrolled with J. Sargeant Reynolds Community College and Universal Technical Institute. The program is industry-certified through NATEF and Automotive Youth Educational System (AYES) program. The program includes the study of engine repair, engine performance, electricity/electronics, brakes, steering, and suspension. In the classroom students will study automotive theory and put the theory into practical use in the auto lab. Automotive manufacturers and local dealerships sponsor the Automotive Youth Education System (AYES) at CATEC. This program offers employment opportunities with dealerships for students who qualify and are selected during the spring semester of the first year. The program prepares graduates to pursue the Virginia State Inspector's License.

Certifications: AYES

Verified Credits: 1-2 (certification, completer)

College Credits: Students earning a B average and having passing VCCS scores will earn 20 dual enrollment college credits at J. Sargeant Reynolds Community College

Fees apply for this course.

*2 elective credits if taken in conjunction with a CATEC English class.

I 8506

II 8507

MANUFACTURING TECHNOLOGY I

Prerequisite: Materials and Processes Technology

Grades 10-12

1 Credit

Offered at WAHS

Manufacturing technology is an advanced level class for students interested in construction and materials processes. Students design, build, and evaluate all aspects of the final product. Students work with projects that help them gain advanced skills required by the construction industry.

Industry Certification/Credentialing Exam may be required at the end of this course.

Fees apply for this course.

..... 8425

MANUFACTURING TECHNOLOGY II

Prerequisite: Materials and Processes Technology, Manufacturing Technology I

Grades 11-12

1 Credit

Offered at WAHS

Advanced Manufacturing is designed for students wanting to be more independent with the use of equipment and design of projects. Students will build a chair or rocking chair. The self-paced curriculum allows the student the opportunity to use problem-solving skills in order to complete projects. Students gain hands on experience in a fun and challenging course as well as learn about a manufacturing system and how a company works.

Industry Certification/Credentialing Exam is required at the end of this course.

Fees apply for this course.

..... 8426

CONSTRUCTION TECHNOLOGY

Prerequisite: Materials Processes Technology or Technical Drawing

Grades 10-12

1 Credit

Offered at MoHS

Students design, build, and test scale-model structures using basic hand tools and power tools. Students work with projects that help them gain the skills required by the construction Industry. Students who complete Construction Technology I at the home high school may be eligible to enter Building Trades II with teacher recommendation and be considered a career/technical education completer.

Fees apply for this course.

..... 8431

MATERIALS AND PROCESSES TECHNOLOGY

Grades 9-11 1 Credit
Offered at MoHS, WAHS

Students focus on industrial/technical materials and processes as they fabricate usable products and conduct experiments. This laboratory course is recommended for students interested in technical careers and others wishing to improve their consumer knowledge and technological literacy.

Fees apply for this course.

..... 8433

BUILDING TRADES I & II

2 Year Program
Prerequisites: Students must be 16 years of age or older.

Grades: 10-12 Offered at CATEC
I 2-3 Elective Credits*
II 2-3 Elective Credits*

This course will teach all the basic skills of the following trade areas: carpentry, residential wiring, residential plumbing, and masonry. Blueprint reading and drawing are introduced at the beginning of the course. The latter part of the course focuses on carpentry from framing to the finishing trim and roofing. Plumbing is introduced as it relates to the other trades during the year. Residential wiring emphasizes the basics of wiring a house and the National Electrical Code. All aspects of residential construction from project planning, purchasing material to code compliance are taught. Emphasis will be placed on proper employability skills and attitude throughout both years of the course.

Certifications: NCCER, Construction Academy Assessments

College Credits: PVCC 9 credits

Verified Credits: 1-2 (certification, completer)

*2 elective credits if taken in conjunction with a CATEC English class.

I 8515

II 8516

MASONRY I & II

2 Year Program

Prerequisites: Students with allergies (dust, etc.) should consult a physician prior to enrollment.

Grades: 10-12 Offered at CATEC
Masonry I: 2-3 Elective Credits*
Masonry II: 2-3 Elective Credits*

Students in Masonry will work with brick, concrete, glass block, tiles, terra cotta, and stone. Work can be as simple as laying a wall or as complex as building a fireplace. The work is very physical, involving the use of hand tools, power tools, and other materials. Brick and block are laid by hand, requiring the skill of a craftsman. Students will learn to read blueprints, understand building codes, and be knowledgeable of industry safety requirements and guidelines for handling hazardous materials.

Certifications: NCCER

Verified Credits: 1-2 (certification, completer)

College Credits: PVCC 6 credits

*2 elective credits taken in conjunction with a CATEC English class.

I 8512

II 8513

GREEN INDUSTRY TECHNOLOGY

Grades: 10-12 Credit 1.5
Offered at CATEC

In this course, students will explore the world of sustainability through an interactive Research—> Design—> Build process. Using industry-caliber strategies and practices, students will study a variety of topics, including: sustainable design, sustainable water systems, building design, technical and architectural drawing and modeling, the triple bottom line, and OSHA 10 Certification. Upon completion of the course, students will be prepared with the necessary mindset to follow and implement sustainability practices in their field of choice. More information can be found at: <http://greentechcatec.blogspot.com/>

..... 90745



Many CTE Courses charge a materials/project fee.



A Career and Technical Education Completer (CTE Completer) is a student who completes a CTE concentration. A concentration is a coherent sequence of courses (courses totaling 2 credits) completed by a student in a specific career area or specialization and who meets all high school graduation or GED requirements.

Course Descriptions



Effective writing and reading skills are as important for effective communication as speaking and listening skills. They are not just a set of basic skills people are taught at school. Writing and reading are an integral part of each educated individual's life since they are the basis of written communication. Written communication, in its turn, is another tool for people to express their ideas and learn about those of others.

The Importance of Effective Reading Skills

Reading skills serve as a foundation for writing. Developed and mastered, effective reading skills give people the opportunity to learn new information about the world, people, events, and places. Reading enriches their vocabularies and improves their writing skills.

- Reading enriches the inner world of a person and improves grammar and spelling.
- Through reading, people learn to understand different ways of thinking and feelings of other people and become more flexible and open-minded.
- Avid readers not only read and write better than those who read less but also process information faster. The research presented by the Journal of Abnormal Child Psychology proves that poor readers have poorer short-memory functions.
- As a result, avid readers have a broader outlook, are quicker to analyze facts, and find connections between seemingly unrelated ideas.
- A reader has better skills for comprehending, analyzing, understanding, responding, and, finally, learning from what he or she reads.
- As a result, it is easier for good readers to get used to new and unfamiliar circumstances or ideas. They are easier to communicate with and have higher chances to succeed in both professional and personal life.

The Importance of Effective Writing Skills

- Application essays, resumes, cover letters, and even e-mails often have to represent an individual. In such cases the person's writing is to form the reader's opinion about the individual's personality and abilities.
- Excellent writing is sure to earn respect. Poor writing will, on the contrary, be difficult to understand and will leave a bad impression about the individual.
- Writing structures and crystallizes one's thoughts, improving learning.
- Writing improves the effectiveness of the person's word usage in both written and oral speech.
- A survey conducted among 64 American companies revealed that half of them pay attention to writing when considering a person for employment or promotion.
- According to Roger Howe, a former chairman and CEO of U.S. Precision Lens, the majority of the successful people are clear and persuasive in their writing.
- Developed reading skills lead to the development and improvement of writing skills. Regular readers' comprehension skills (ability to compare and contrast, evaluate and summarize, identify specific features and genres, make analogies) serve as a basis for good writing.

Adapted from "The Importance of Reading and Writing Skills" by Alla Kondrat, Suite101.com, February 21, 2009

ENGLISH 9

1 Credit

English 9 is a comparative study of genres and world literature in the ancient and classical worlds. Through five interdisciplinary concepts (systems, change and continuity, communication, aesthetics, and universality) and the correlating language arts concepts, students explore eastern and western literature and seek to answer critical questions about the language arts: Why do literary eras matter? How do cultural changes affect style of literature and art? What determines whether a belief (system) will be timeless or trendy? Ninth-grade students read extensively in a variety of genres and practice comparative analysis skills. Continued emphasis is placed on the components of writing, such as organizational structures and written expression.

Standard	1132
Academic/Advanced	1138
Honors	1136

ENGLISH 10

Prerequisite: English 9

1 Credit



English 10 is a comparative study of genres and world literature from medieval to modern times. Through five interdisciplinary concepts (systems, change and continuity, communication, aesthetics, and universality) and the correlating language arts concepts, students explore eastern and western literature and seek to answer critical questions about the language arts: Why do literary eras matter? How do cultural changes affect style of literature and art? What determines whether a belief (system) will be timeless or trendy? As such, tenth-grade students read extensively in a variety of genres and practice comparative analysis skills. Students write and speak for a variety of audiences and purposes, applying and refining written and oral communication using a range of literary and persuasive techniques.

Note: The Standards of Learning Test is only required at MoHS for English 10.

Standard	1142
Academic/Advanced	1148
Honors	1146

ENGLISH 11

Prerequisite: English 10 **1 Credit**



English 11 is an integrated course designed to help students develop a comprehensive view of American literature, history, and culture. In gathering together the many threads of American culture, students leave this course with a better understanding of who they are and what it means to be an American. Through a variety of learning experiences, students discover relevant connections among movements in American art, literature, music, economics, and politics. This course integrates standards from English 11 and Virginia and United States History, thus preparing students for End-of-Course tests in each subject.

Standard 1152
Academic/Advanced 1158
Honors 1156

ENGLISH LANGUAGE & COMPOSITION Advanced Placement

Prerequisite: English 10 **1 Credit**
Offered at AHS & MoHS



This is an integrated course designed to help students develop a comprehensive view of American literature, history, and culture. This highly rigorous course prepares students to take AP exams.

Students concentrate on reading and analyzing historical material, weighing historical evidence and interpretation, and synthesizing and evaluating information in analytical writing. Students study American literary eras, reading from a variety of disciplines and contexts. They compose for a variety of purposes and audiences. Reading and writing experiences help students understand the concepts of communication, individual development and identity, aesthetics, and universality.

Students are expected to take an AP exam. The exam fee is approximately \$89 per test. Students who do well on this may test receive college credit or superior placement at participating colleges.

Note: Students may elect to take the Standards of Learning End-of-Course tests for Virginia and United States History and English 11. A score of 2 or better on the AP exam earns a verified credit.

..... 1196

ENGLISH 12

Prerequisite: English 11 **1 Credit**

English 12 is a study of the evolution of the English language through British and world literature. Students continue to hone their analytical skills and seek to answer critical questions about language and literature: What factors affect the evolution of language? What allows a piece of literature to endure the vagaries of culture and time? What does it mean to think through language and literature? Students demonstrate understanding of language and literature through polished compositions, literary analysis, and speaking. Additional emphasis is placed on the development of a personal, sophisticated style of communication that reflects creative, critical thinking.

Standard 1162
Academic/ Advanced 1168

ENGLISH LITERATURE & COMPOSITION Advanced Placement

Grade 12 **1 Credit**

Advanced Placement English is for twelfth-grade students who want an intensive, college-level English course that prepares them to take one or both of the AP English Exams. The course is conducted much like a college seminar, and therefore it requires high-quality work in and out of class. Students read works of literature analytically and critically, and they respond with increasing sensitivity and discrimination of language. Essays focus on literary analysis but students have some opportunity to practice creative writing.

Students are expected to take an AP exam. The exam fee is approximately \$89 per test.

Advanced Placement 1195



All courses are offered at all three high schools unless otherwise indicated.



Students who do well on an AP Exam may receive college credit or superior placement at participating colleges.



Indicates Standards of Learning Test (SOL)



Indicates PVCC Dual Enrollment

ENGLISH 111/112 
College Composition I and II

Prerequisite: Satisfactory scores on VCCS placement test and PVCC application
Grade 12 1 Credit (6 College Credits)

This college-level course develops the students' ability to write and read effectively for study, work, and pleasure. Students read prose, fiction, drama, and poetry. They also compose essays, letters, abstracts, annotations, and other nonfiction prose. Emphasis is placed on short narrative works. Students work extensively in each area of the writing process and learn to employ writing conventions while developing individual voice and style. Students write extensively, with emphasis on response to literature and writing for a variety of audiences and purposes. Through these writing experiences, students synthesize information, develop individual voice and style, and better understand literary technique.

Note: The student is responsible for purchasing the college textbook associated with this course.

..... 1194

WOMEN IN ART AND LITERATURE
Grades 10–12 1 Credit

Offered at AHS

Students study a selection of female authors, poets, and artists from various cultures and time periods. They analyze the development of common themes and study the ways women revolutionized particular genres within their historical context. The class will be an open forum for discussion and interpretation. Students write informal and formal pieces in response to text.

..... 1495

 **Indicates
 PVCC Dual
 Enrollment**

WRITING CENTER I: METHODS

Prerequisite: Teacher Recommendation, Application, Interview. 10th graders must have completed Honors English 9 with a B or better. 11th graders must be enrolled in Honors or AP English
Grade 10–12 1 Credit

Offered at AHS, MoHS

Students enrolled in this course are responsible for operating the school's writing center as peer tutors. Approximately half of the course will be dedicated to studying the pedagogy of writing instruction and literacy strategies. Students can expect to learn about writing in multiple disciplines, develop their research skill, and create and collaborate in a digital environment. Students can expect to read a methods text and prepare a literature review and oral presentation. They will compose a tutoring strategies article. Students will keep a log of their tutoring sessions. Students will practice writing in a variety of disciplines with a particular emphasis on creative non-fiction and participate in regular writers' workshops. Students will compile a portfolio of their revised writing, which will count as their final exam grade. Students in this course will be expected to tutor weekly during school-wide remediation time and/or after school.

..... 1541

**WRITING CENTER II AND III:
 FELLOWSHIP**

Prerequisite: Successful completion of Writing Center I and be tutors in good standing. 11th graders must be enrolled in Honors or AP English.

Grade 11–12 1 Credit
Offered at AHS, MoHS

Students enrolled in Writing Center II and III will continue the work they began in Writing Center I with a focus on assuming greater responsibility for the operation of the center, particularly in mentoring new tutors and leading PLCs. They will conduct original research related to writing in an academic discipline. All tutors are expected to submit a conference proposal and/or a journal article stemming from this research. These tutors will also focus their portfolios to develop their writing in a genre of their choosing. Students in this course will be expected to tutor weekly during school-wide remediation time and/or before/after school.

II 1542
III 1543

PRACTICAL LANGUAGE

Prerequisite: Teacher recommendation
 This course should be in addition to a student's English class.

Offered at AHS, WAHS

This is a highly-structured, research-based intervention that offers an accelerated, sequential approach to literacy while addressing the components of a balanced literacy diet.

1 1485
2 1483
3 1486
4 1487

**SAT PREP/SUCCESSFUL
 STRATEGIES FOR COLLEGE**

Co-Requisite: Algebra II
Grades 10–12 1 Credit

Offered at AHS, WAHS

This class prepares students to take the SAT. Students learn and practice a variety of reading strategies necessary to effectively interact with college-level text. They also gain experience with writing on demand, thus preparing them for timed writing situations. The development of study skills and habits essential for success in college is stressed.

..... 9915

CORE+

Prerequisite: Teacher Recommendation
Grade 9–12 1 Credit

CORE+ is a full year, full-credit skills based class designed to help support student achievement in the core areas. Small class size allows individual attention to student needs in the areas of reading, vocabulary, spelling, writing skills, foundational math skills, and research skills. The course includes career, college and training exploration and some real-world experiences in those areas, as appropriate for the students in the class. These experiences may include college visits, completion of job applications, practice with interviewing, and strengthening of self-advocacy skills. CORE Plus is open to students in grades 9–12 and may be taken in consecutive years.

..... 9821

SKILLS DEVELOPMENT READING/WRITING I, II, III, IV

Prerequisite: Teacher Recommendation
Grades 9-12 **1 Credit**
Offered at AHS, MoHS

This course is offered for students whose reading comprehension levels are significantly below grade level. It is designed to develop and enhance fundamental reading and writing skills. Course content includes skills development through decoding and encoding, vocabulary development, comprehension practice, and exposure to various reading strategies. Course content in writing includes instruction in the areas of composition, written expression, usage, and mechanics.

I	1112
II	1113
III	1114
IV	1115

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)

Prerequisite: Teacher recommendation and assessment
Grade 9-12 **1 Credit**
(English 9 and/or 10, World Language, or Elective Credit)

ESOL courses are designed for students whose primary language is not English. The courses provide students with targeted language instruction designed to prepare students to meet the same rigorous standards as all students are expected to meet. Levels I and II students work to develop the basic reading, writing, speaking, and listening skills through the content areas of social studies, science, math, and language arts. Students are expected to draw upon previous experience and background and receive support with cultural adjustment and cross-cultural communication skills. Levels III and IV students continue to hone their language skills and receive targeted content area support with a focus on reading, writing, and development of academic vocabulary.

I	5724
II	5729
III	5732
IV	5733

ESOL STUDY / ORGANIZATIONAL SKILLS

Grades 9-12 **1 Elective Credit**

This ESOL course is designed as a writing-intensive resource class to support English Language Learners (ELL) who are taking a mainstream-level course load. The ESOL teacher works closely with content area teachers to design enrichment lessons that teach content curriculum with an emphasis on comprehension and academic vocabulary. Students also receive support in test-taking and study skills, organizational skills, SOL preparation, and effective reading strategies.

I	5725
II	5726
III	5727
IV	5728



ESOL courses may be counted for English 9 and/or English 10 credit. They may also be counted for World Language Credit or as an elective credit. Credit for a single ESOL class may be given only once. If a student receives World Language credit for an ESOL course, then he or she may not receive credit for the same course in the area of English or electives.

Decisions about how to distribute ESOL credits should be collaborative and involve the ESOL Coordinator or designee, school counselor, parent, and student.

Course Descriptions

“We can’t imagine not having [Fine Arts classes] in our schedules. They help us keep in touch with our human side. We need one class a year where we can follow our own ideas and figure things out in our own way.”

— ACPS Juniors Henry & Sophie

Visual and Performing Arts provide a natural and essential context for important Lifelong Learning habits and skills, such as creating, risk-taking, and perseverance, and also bring us joy as an expressive part of the human experience. In our Fine Arts classes students have the opportunity to:

- Apply musical, theatrical, and/or visual arts skills, independently and collaboratively, through performance and display opportunities, both inside and outside of the classroom.

- Communicate about the Arts by describing, analyzing, evaluating, and critiquing using Arts-specific vocabulary.
 - Recognize and appreciate the aesthetic nature of the Arts, anchored in cultural and historical contexts as well as personal preferences.
 - Connect with Arts opportunities and careers, both locally and globally.
- The goal of Fine Arts instruction is ultimately to prepare all students for a lifetime of engagement with their creative side through art, music, theater, publishing, filmmaking and creative writing.

PERFORMING ARTS—Instrumental Music



STRING ENSEMBLE

Prerequisite: Minimum two years of private instruction and an audition with the director

Grades 9–12 1 Credit

String Ensemble: standard violin, viola, cello, bass instrumentation. This group studies and performs works for string orchestra from the Baroque through the Modern period. Student must provide own instrument. Large instruments may be rented from the school.

Fees apply for this course.

I.....	9241
II.....	9266
III.....	9267
IV.....	9268

Courses are taught at all three High School—AHS, WAHS and MoHS, unless otherwise noted.

CONCERT ORCHESTRA

Prerequisite: Two years previous instrumental training and/or approval of the director.

Grades 9-12 1 Credit

Offered at AHS

String Ensemble: standard violin, viola, cello, bass instrumentation. This group studies and performs more advanced works for string orchestra from the Baroque through the Modern. Student must provide own instrument. Large instruments may be rented from the school.

Fees apply for this course.

I.....	9238
II.....	9239
III.....	9215
IV.....	9216

SYMPHONIC BAND

Prerequisite: Two years previous instrumental training and/or approval of the band director. An audition is required.

Grades 9-12 1 Credit

The Symphonic Band I is an intermediate large ensemble and requires the recommendation of the director to become a member. The Symphonic Band also functions as the Marching Band at WAHS. Time commitments and events vary by the individual school. Please consult with the school’s band director for more information.

Fees apply for this course.

I.....	9234
II.....	9235
III.....	9263
IV.....	9264

CONCERT BAND

Prerequisite: One year minimum previous instrumental training or instructor permission

Grades 9-12 1 Credit

Offered at AHS, MoHS

Concert Band I is an entry-level large ensemble and is required for all 9th grade band members, except with special permission of the director. The Concert Band rehearses and performs Band Repertoire in the 3-4 level of difficulty range. Concert band members perform at the regular concerts, and at some district events and are eligible to audition for district and regional honors and Albemarle County Honors Band.

Fees apply for this course.

I.....	9233
II.....	9246
III.....	9247
IV.....	9248

MARCHING BAND

Prerequisite: Recommendation of band director

Grades 9-12 .5 Credit

Offered at MoHS, AHS

The Marching Band performs at home football games, parades and competitions. Band members are required to attend band camp in the summer. The Albemarle Band rehearses at zero period and some Tuesday afternoons. The Monticello Band will meet during the school day and on Friday afternoons of home football games.

Fees apply for this course.

.....	9297
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PERFORMING ARTS—Instrumental Music *(continued)*

PERCUSSION ENSEMBLE

Prerequisite: One year minimum previous instrumental training
Grades 9-12 **1 Credit per year**
 This class is offered for students interested in percussion, keyboard, guitar, bass, and theory. It places emphasis on continued development of skills as well as proper rehearsal and performance techniques. It also includes instruction in theory, ear-training, and music history. The Percussion Ensemble performs winter and spring concerts and at other times at the discretion of the director.
 Fees apply for this course.
 9242

WIND ENSEMBLE

Prerequisite: Previous instrumental training, teacher recommendation, and audition
Grades 9-12 **1 Credit**
Offered at AHS, MoHS
 The Wind Ensemble is the most advanced large ensemble and serves as a primary performing ensemble at the school. The Wind Ensemble rehearses and performs repertoire in the 5 – 6 level of difficulty. Ensemble members perform at regular concerts and are eligible to audition for district and regional honors and for the Albemarle County Honors Band. Ensemble members practice daily, develop skills on ear training and dictation, and may compose music.
 Fees apply for this course.
 9243

JAZZ BAND

Prerequisite: Previous instrumental training, approval of Band Director, audition
Grades 9–12 **1 Credit**
 The Jazz Band is an audition-only group that focuses on the performance, theory, and practice of jazz and popular music including style, articulations, phrasing, improvisation, and ensemble playing. The Jazz Band performs throughout the year in the community, in school concerts, and at jazz festivals. Some performances are in the evenings and on weekends. Jazz Band members are eligible to audition for district and regional honors and for the Albemarle County Honors Band.

- I 9296
- II 9299
- III 9298
- IV 9262

MUSIC THEORY (Advanced Placement Available)

Prerequisite: Music Theory or 3 years music performance .
Grades 9-12 **1 Credit**
Offered at AHS, MoHS **1 year course**
 Students will read and recognize musical concepts, musical notation, and employ technology for meaningful expression in music.
 9228
 AP 9226

MUSIC APPRECIATION / MUS121

Grades 9-12 **1 Credit**
Offered at WAHS
 Music Appreciation intends to guide the student to learn and experience music from a different perspective - from the eyes of a true musician. Students will learn about the history of western music, the social context in which music takes place, music notation, and the culture of performance.
 tbd

PIANO/KEYBOARD I

Grade 9–12 **1 Credit**
Offered at AHS
 Piano class is designed for students of various levels to learn to play the piano. Students will develop a working knowledge of skills and techniques required to play the piano. They will learn music reading skills, correct keyboard fingering and technique. Students work individually, at their own pace, with teacher supervision and instruction. Class time will be used for instruction, practice and performance for peers. Concepts of self-discipline, study strategies and the ability to handle difficult tasks will be incorporated into the lessons. This class is for students who have a serious desire to learn to play the piano.
 9255

GUITAR I AND II

Grades 9–12 **1 Credit**
Offered at WAHS, AHS
 This course will be open to any student who is interested in learning guitar. It will be self-paced to allow for different levels of proficiency. There will also be performance opportunities available.
 I 9245
 II 9249



CONCERT CHOIR

Prerequisite: None; Middle School chorus recommended

Grades 9-12 **1 Credit/year**

This class is available to students with an interest in developing singing ability. Students learn note reading, part singing (soprano, alto, tenor, bass), rhythm, and how to be a participating member of a group.

Fees apply for this course.
I 9285
II 9286
III 9287
IV 9288

ADVANCED CONCERT CHOIR

Prerequisite: Chorus I and/or teacher recommendation

Grades 10-12 **1 Credit/year**
Offered at AHS

The concert choir is a mixed group and provides our most advanced choral students opportunities to develop their singing abilities to the greatest possible extent. Advanced chorus performs in public. All members must participate in all functions. The most advanced students audition for Regional Chorus (10-12), All State Chorus (11-12), and State Honors Chorus (12).

Fees apply for this course.
 9277

SHOW CHOIR

Prerequisite: One year of Chorus, Vocal and Choreography audition

Grades 9-12 **1 Credit**
Offered at AHS, MoHS

Students concentrate on show choir techniques: blocking, choreography, staging, and microphone techniques. Students demonstrate an advanced knowledge of basic singing skills: pitch-matching, tonal memory, sight reading, theory, and harmony. Students perform three major concerts with the possibility of several smaller performances. Students have the opportunity to participate in District Choir, All-State Chorus, District Choral Festival, and a spring competition.

Fees apply for this course.
I 9272
II 9273
III 9274
IV 9275

VOCAL JAZZ

Prerequisite: Teacher recommendation and vocal audition

Grade 10-12 **1 Credit**

Students perform standard and contemporary vocal jazz repertoire, with an emphasis on jazz technique. Students demonstrate an advanced knowledge of basic singing skills. Students perform three major concerts with the possibility of several smaller performances. Students have the opportunity to participate in District Choir, All-State Chorus, District Choral Festival, and the Spring Competition.

Fees apply for this course.
I 9282
II 9283
III 9276
IV 9278

WOMEN'S ENSEMBLE

Prerequisite: Vocal audition and knowledge of music reading

Grades 9-12 **1 Credit**
Offered at AHS, WAHS

Students concentrate on all genres of treble music. Students must demonstrate an advanced knowledge of basic singing skills. Students have the opportunity to perform in local, regional, and state-wide Choral events.

Fees apply for this course.
I 9250
II 9251
III 9252
IV 9253

ADVANCED WOMEN'S ENSEMBLE

Prerequisite: Teacher recommendation and audition

Grades 10-12 **1 Credit/year**

This ensemble provides our most advanced female choral students the opportunity to develop their singing abilities to the greatest extent. The ensemble performs in public and all members must participate at all functions. Students will audition for All County Chorus (grades 10-12), district Chorus (grades 10-12), All State Chorus (grades 11-12) and Virginia Honors Chorus (grade 12). Students concentrate on all genres of treble music. Fees apply for this course.

..... 9270

MEN'S ENSEMBLE

Grades 9-12 **1 Credit**
Offered at AHS

Students concentrate on all genres of men's music. Students have the opportunity to perform in local, regional, and state-wide Choral events.

Fees apply for this course.
 9271

TREBLE JAZZ I, II AND III

Prerequisite: Teacher recommendation and vocal audition

Grade 9-12 **1 Credit**
Offered at AHS, MoHS

Students perform standard and contemporary vocal jazz repertoire with an emphasis on jazz technique. Students demonstrate an advanced knowledge of basic singing skills. Students have the opportunity to perform in local, regional, and state-wide Choral events. Advanced student proficiency expected in Treble Jazz III.

Fees apply for this course.
I 9279
II 9280
III (MoHS only) 9284

CHAMBER MUSIC ENSEMBLE

Prerequisite: Teacher recommendation and audition required

Grades 10-12 **1 Credit**
Offered at MoHS

Student must be proficient as an instrumentalist or singer and be studying privately or be willing to let the program help secure appropriate private instruction. Advanced performance, sight reading, and music proficiency required. There will be an emphasis on interactive chamber music in class, as well as continuing music theory, composition, and arranging skills. Students may prepare college and competition audition repertoire and could be given performance opportunities for junior and senior recitals at the school. Contact with university and conservatory instructors will be facilitated to further the education of these students. Encouragement and assistance will be given for placement in UVA chamber and ensemble music classes if desired. The Chamber Ensemble will also perform once a month in the community to support and develop the community music culture.

..... 9205

DRAMA I

Grades 9-12 **1 Credit**

This course explores the fundamentals of theater as an ensemble art. Students apply the creative process through in-class storytelling, playwriting, acting, and improvisation and respond to theatrical experiences using theatre arts vocabulary. This course prepares students for participation extracurricular participation in dramatic productions (although course participation is not a prerequisite for participation in extracurricular school plays and musicals).

..... 1430

DRAMA II

Prerequisite: Drama I or teacher recommendation

Grades 10-12 **1 Credit**

This advanced course is designed for students who want to expand their artistic abilities and appreciation of drama. It is designed for students eager to excel in theater as an extracurricular activity beyond the classroom and/or a career. Through various modes of expression and performance, students investigate and interact with dramatic literature, theater styles, historical periods, and technical theater.

..... 1440

DRAMA III

Prerequisite: Drama II or teacher recommendation

Grades 11-12 **1 Credit**

This course is similar in design and scope Drama II with an emphasis on exploration of playwriting which includes research, character development, and creation of dramatic structure, conflict, and resolution. Students study and respond to a variety of theatrical experiences that refine their collaborative, analytical, interpretive, and problem-solving skills. Performance and production outside of the classroom are encouraged.

..... 1442

DRAMA IV AND V

Prerequisite: Drama III or teacher recommendation

Grade 12 **1 Credit**

Drama IV offered at WAHS

Drama V offered at AHS, MoHS

This course is for advanced students who wish to maximize creative and collaborative opportunities in the theater arts. Students refine their personal acting techniques, demonstrate a variety of performance skills, and prepare for academic and/or professional auditions. As a culmination of their coursework in drama, students have the opportunity to direct—ranging from a two-character scene to one-act play.

IV..... 1444

V 1445

HISTORY OF MUSICAL THEATRE

Grades 9–12 **1 Credit**

Offered at AHS

Students study the origin and development of musical theatre over the past 100 years beginning with Vaudeville and silent movies. Theatre enthusiasts, Broadway lovers, and potential Spring Play participants will benefit from the course.

..... 1415

BASICS OF TECH THEATER

Grade 9-12 **1 Credit**

Offered at MoHS, WAHS

This introductory course covers theater and stage history, aspects of stage management, lighting, audio and sound for stage, basic set design and scenery construction, and safety. Students will be involved in the technical aspects of various productions and events throughout the school year.

..... 1435

IMPROVISATION AND COMEDY

Grades 9–12 **1 Credit**

Offered at MoHS

Students will study the history of improvisation as well as the modern schools of improvisation. Students will learn the skills of long and short form improv, examine comedy across cultures over the past fifty years, and write and perform their own sketch comedy.

..... 1448

SPEECH AND COMMUNICATION

Grades 9-12 **1 Credit**

Offered at AHS, WAHS

Students learn the basic principles of public speaking by evaluating their own and others’ speeches. Technology will be used to produce a computer-generated slide show. Students will learn to become critical listeners and analyze important speeches from history and current events.

..... 1303

DEBATE I

Prerequisite: Instructor’s recommendation

Grades 9-12 **1 Credit**

Offered at AHS

Debate teaches students how to coordinate the written and oral communication process through a study of logical thinking and research techniques culminating in written and oral presentations. A study of the national debate topic, leading to participation in interscholastic debate competition, is one strategy for accomplishing this goal. Students may take this course four years and receive four credits toward graduation.

..... 9918

VISUAL THINKING / INTRO TO FILM

Grades 10–12 **1 Credit**

Offered at AHS

This course will provide an insight into film as an art form, both in terms of culture and entertainment. Students will study the films of Hitchcock, Spielberg, Blake Edwards, Zemeckis, Jewison, Redford, Kurosawa, Frankenheimer, Pollack, Curtiz, and many more. Film genres include: animation, mystery, thrillers, action films, classics, comedies, and foreign films.

..... 1447

ART I

Grades 9-12 1 Credit

This course introduces students to the foundational elements and principles of design to be used as a basis for the development of a common language both visual and verbal. It provides an overview of many aspects of art through a variety of experiences in drawing, painting, printmaking, and sculpting. The course stimulates creative thinking and problem solving, imparts technical knowledge, and develops expressive skills.

Fees apply for this course.
..... 9120

ART II

Prerequisite: Teacher recommendation; Art I
Grades 10-12 1 Credit

This course provides students with the opportunity to build on the skills developed in Art I in the areas of drawing, painting, printmaking, and sculpting. An in-depth exploration of a variety of media allows students to develop a personal style and to compile a portfolio.

Fees apply for this course.
..... 9130

ART III

Prerequisite: Teacher recommendation; Art II
Grades 11-12 1 Credit

Students continue the development of artistic and aesthetic skills learned in the first two years of art at a more advanced level with increased emphasis on personal expression and on the use of a wider range of media in the areas of drawing, painting, printmaking, and sculpture. Students continue to develop their portfolios.

Fees apply for this course.
..... 9140

ART IV

Prerequisite: Teacher recommendation; Art III
Grade 12 1 Credit

This advanced course is designed for students who have a serious interest in art and have demonstrated a high level of proficiency. Students will be guided to work more independently with special emphasis on individual growth. This course provides the opportunity for the mature student to develop a portfolio and to apply art knowledge and techniques for personal expression.

Fees apply for this course.
..... 9154

STUDIO ART, Advanced Placement

Prerequisite: Teacher recommendation; two years of art
Grade 11-12 1 Credit

The emphasis of the AP Studio Art course is for the students to produce 24 high quality, original pieces of art that meet the Advanced Placement Art Portfolio guidelines. Students choose one of the following three portfolios: Drawing, 2-D Design, or 3-D Design. In early May, work is digitally submitted to the AP Review Board along with a written statement. In addition, five matted or mounted works are sent to the AP Review Board to complete the portfolio. This work is returned during the summer. Creating art outside the classroom setting is required. Students are expected to submit portfolios to the AP Review Board. One-half to three quarters of the work for this class is done outside the classroom setting.

Fees apply for this course.
..... 9149

STUDIO ART 2-D DESIGN Advanced Placement

Prerequisite: Two years of art and teacher recommendation.
Grade 11-12 1 Credit

The emphasis of the AP Studio Art course is for students to produce high quality, original pieces of art that meet the AP Art Portfolio guidelines for 2-D design. Design involves purposeful decision making about how to use the elements and the principles of art in an integrative way. In the 2-D portfolio, students demonstrate mastery of an design through and 2 dimensional medium or process, including, but not limited to graphic design, digital imaging, photography, collagen fabric design, weaving, fashion design, illustration, painting and printmaking. In early May, work is digitally submitted to the AP Board along with a written statement. In addition five mounted or matted works are sent to the AP Review Board to complete the digital admission. This work is returned during the summer. Creating art outside the classroom setting is required. Students are expected to submit portfolios to the AP Review Board. One half to three quarters of the work for this class is done outside the classroom setting.

..... 9148



STUDIO ART: DRAWING PORTFOLIO

Advanced Placement

Prerequisite: 2 years of Art
Grade 11-12 1 Credit

The emphasis of the AP Studio Art course is for students to produce high quality, original pieces of art that meet the AP Art Portfolio guidelines for drawing. The drawing portfolio is intended to address a very broad interpretation of drawing issues and media. Line quality, light and shade, rendering of form, composition, surface manipulation, the illusion of depth and mark-making are drawing issues that will be addressed through a variety of means, which include painting, printmaking, mixed media, etc. In early May, work is digitally submitted to the AP Board along with a written statement. In addition five mounted or matted works are sent to the AP Review Board to complete the digital admission. This work is returned during the summer. Creating art outside the classroom setting is required. Students are expected to submit portfolios to the AP Review Board. One-half to three quarters of the work for this class is done outside the classroom setting.

..... 9150

DRAWING



Drawing 121/122

Grades 9-12 **1 Credit**

Offered at WAHS

Students will develop basic drawing skills and understanding of visual language through studio instruction /lecture. Concepts of proportion, tone, space, perspective, and composition as applied to drawing styles such as still life, landscape and the human figure. A variety of media including pencils, charcoal, ink and various colored media will be used in conventional and unconventional ways. Critiques, art exhibitions, field trips and gallery/museum visits as appropriate.

..... 9122

ART HISTORY, Advanced Placement

Grade 11-12 **1 Credit**

Offered at WAHS

Building on a strong foundation in world history, students explore western and non-western traditions in art and architecture from the prehistoric-era to the present. This course integrates studies of aesthetics, production, and criticism with the history of art in preparation for the AP Art History test. Course expectations include independent reading of a college-level text and writing critically about art. Students are expected to take the AP test.

Fees apply for this course.
..... 9151

CERAMICS I

Grades 9-12 **1 Credit**

This course is designed for students who want to concentrate on hand-building, wheel thrown pottery, and clay construction. Specific ceramic techniques are used to make pots and sculptures. Emphasis is on form, design, and craftsmanship.

Fees apply for this course.
..... 9110

CERAMICS II

Prerequisite: Ceramics I
Grade 10-12 **1 Credit**

This advanced course is designed for the serious ceramics student. Emphasis on the development of skills, both in hand-building and wheel-throwing, is of primary importance. Personal and artistic style is stressed through advanced projects and techniques.

Fees apply for this course.
..... 9112

CERAMICS III

Prerequisite: Ceramics II
Grade 11-12 **1 Credit**

This course is similar in design and scope to Ceramics II with an emphasis on the development of personal and artistic style. Advanced techniques in glazing and decorating are introduced.

Fees apply for this course.
..... 9114

CERAMICS IV

Prerequisite: Ceramics III
Grade 12 **1 Credit**

This advanced course is for the serious ceramist as it continues the exploration of and craftsmanship in both hand-building and wheel-throwing. Students work at a highly independent level to utilize these skills in the creation of both functional and non-functional ceramic pieces. Glazing and decorative experimentation are pursued in-depth.

Fees apply for this course.
..... 9115

ADVANCED FUNCTIONAL CERAMICS

Prerequisite: Ceramics IV or teacher recommendation
Grade 11-12 **1 Credit**
Offered at MoHS

This course is offered for advanced students who wish to continue the study of ceramics at a higher level. It is designed to encourage personal creative growth through experimentation with innovative functional ceramics processes and techniques not taught in previous courses. Students participate in both formal and informal critiques at the advanced level.

..... 9116

ADVANCED SCULPTURAL CERAMICS

Prerequisite: Ceramics IV or teacher recommendation

Grade 11-12 **1 Credit**
Offered at MoHS

This course is offered to advanced students who wish to continue the study of ceramics. It uses non-functional sculptural problems to encourage and develop personal creative growth through innovative sculptural ceramics processes and techniques not taught in previous courses. Students will experiment with surface design as it relates to sculptural ceramics including use of technological advances and mixed media, developing and mixing glazes appropriate for sculptural ceramics, and participating in both formal and informal critiques at the advanced level.

..... 9117

SCULPTURE I

Prerequisite: Art I, Ceramics I or Teacher Recommendation

Grade 10-12 **1 Credit**

Sculpture I will allow students to explore and expand upon their knowledge of three-dimensional forms while learning about professional sculptors. Students will apply design principles to create forms using a wide variety of techniques and media. Learning about professional sculptors will provide inspiration and clarify techniques.

..... 9175

PRINTMAKING

Prerequisite: Art I
Grade 10-12 **1 Credit**

Offered at AHS

This one year course emphasizes the graphic arts through the use of various print techniques such as: monotype, lithography, wood block, linoleum, intaglio (engraving), and silkscreen. The application of the principles and elements of design will provide the structure for learning about printmaking. Skills that involve the use and care of various tools for carving and cutting will be taught as well how to use a printing press.

..... 9186

MULTIMEDIA CRAFTS/ DESIGN

Grades 9-12 **1 Credit**
Offered at MoHS, WAHS

This is a beginning level course that emphasizes the exploration and history of various crafts. Topics may include weaving, mosaics, batik, papermaking, macramé, mixed media designs, and basketry. Both the functional aspects of crafts and the nontraditional creative approach are stressed. Fees apply for this course.
 **9160**

MULTIMEDIA CRAFTS II

Prerequisite: Teacher recommendation; Multimedia Crafts/ Design
Grades 10-12 **1 Credit**
Offered at MoHS, WAHS

This course is for the more experienced student who is continuing his/her education in crafts. Students research and study the history of specific crafts along with the adaptation of certain craft objects to contemporary use. The student works with a variety of media and techniques such as textile and fiber arts, ceramics, basketry, batik, jewelry making, papermaking, mixed media design, bookmaking, and collage. Fees apply for this course.
 **9161**

MULTIMEDIA CRAFTS III

Prerequisite: Teacher recommendation; Multimedia Crafts II
Grades 11-12 **1 Credit**
Offered at MoHS, WAHS

This is an advanced crafts course designed for students who are highly skilled in this discipline and have a special interest in Fine Arts. Students work more independently with an emphasis on artistic and aesthetic growth and development. Fees apply for this course.
 **9104**

MULTIMEDIA CRAFTS IV

Prerequisite: Teacher recommendation; Three years of Multimedia Crafts
Grade 11-12 **1 Credit**
Offered at MoHS, WAHS

This course is designed for students who can work independently to enhance their knowledge of the materials and techniques taught in previous Multimedia Crafts classes. Fees apply for this course.
 **9166**

DIGITAL IMAGING I

Grade 9 -12 **1 Credit**
Offered at WAHS

Students will work on digital or film images enhanced through Photoshop. The emphasis will be on creating altered images that could be used for fine art, advertising, or publications. The Internet will serve as a resource for tutorials, artistic examples, and research. Fees apply for this course.
 **9191**

DIGITAL IMAGING II

Prerequisite: Digital Imaging I
Grade: 10-12 **1 Credit**
Offered at WAHS

This course continues the study of digital imaging. An emphasis will be placed on learning more advanced Photoshop skills to study design and digital production. Fees apply for this course.
 **9181**

DIGITAL IMAGING III

Prerequisite: Digital Imaging I & II
Grade: 11-12 **1 Credit**
Offered at WAHS

For students who want a more in-depth knowledge of design, digital photography, and Photoshop. Emphasis will be placed on creating a digital portfolio. Students will assist in designing their own projects and setting goals for learning. Fees apply for this course.
 **9183**

PHOTOGRAPHY I

Grades 9–12 **1 Credit**

This beginning course in black-and-white photography introduces photographic equipment, materials, processes, and ideas. The emphasis is on 35mm camera techniques and darkroom skills including developing negatives and making enlargements. Students also prepare work for exhibits throughout the year. Considerable outside time is required to complete projects. Fees apply for this course.
 Required Equipment: A digital or a manual 35mm camera (single lens reflex (SLR) is preferable) with a built-in light meter. A limited number of school-owned cameras may be available for loan.
 **9193**

**Interested
 in Digital
 Imaging?**



**There are
 additional
 digital imaging technology
 courses offered in the technical
 education section, page 24.**

PHOTOGRAPHY II

Prerequisite: Teacher recommendation; Photography I
Grades 10-12 **1 Credit**

Photography II students build on skills and processes learned in Photography I and explore alternative processes such as cyanotype, hand coloring, color toning, multiple negative printing, solarization, or photo collage. Fees apply for this course.)
 Required Equipment: A digital or a manual 35 mm camera (single lens reflex (SLR) is preferable) with a built-in light meter. A limited number of school-owned cameras may be available for loan.
 **9180**

PHOTOGRAPHY III

Prerequisite: Teacher recommendation; Photography I and II; portfolio
Grades 11-12 **1 Credit**

Students produce quality prints for inclusion in a portfolio for college application. Students are asked to make a final presentation to the class with a written statement about their work. Fees apply for this course.
 Required Equipment: A digital or a manual 35 mm camera (single lens reflex (SLR) is preferable) with a built-in light meter. A limited number of school-owned cameras may be available for loan.
 **9182**

PHOTOGRAPHY IV

Prerequisite: Photography III
Grades 10-12 **1 Credit**
Offered at AHS, MoHS

Students continue developing photography and photo altering techniques using Photoshop and other programs. Students work at an independent level to create a professional level portfolio while applying techniques for personal creativity.
 **9184**

CREATIVE WRITING I, II

Grades 9–12 1 Credit
Offered at AHS, MoHS

This course is designed for students with special interest in writing original poetry, short stories, essays, scripts, and novels. Strategies, style and techniques used by successful authors are studied. The course requires independent study, teacher-student conferences, group discussions, and sharing of work.

- I 1171
- II 1174

CREATIVE WRITING III, IV

Prerequisite: Teacher recommendation
Grades 10–12 1 Credit
Offered at AHS

Students are already proficient writers with a deep interest in writing creatively. Strategies and techniques used by successful authors are studied. The course requires independent study, teacher-student conference, group discussions, and sharing of work. Emphasis is on writing style and techniques. Students write poetry, fiction, plays, essays, and non-fiction. Students in this class publish the school literary/art magazine.

- Fees apply for this course.
- III 1176
 - IV 1178

**CREATIVE WRITING/
 LITERARY MAGAZINE I & II**

Grades 9-12 1 Credit
Offered at WAHS

This course is designed for students with an interest in writing original poetry, short stories, essays, scripts, and novels. Students will study strategies and techniques used by successful authors, and they will read and critique each other's writing in a writing workshop format. Students will read and discuss all submissions to the school literary magazine and select and edit the pieces to be included. Students will format the magazine using current publishing and design software. This course requires some independent work, a good deal of group interaction and discussion, and the ability to be sensitive to submitting writers and artists.

- I 1172
- II 1117

JOURNALISM

Grades 9-12 1 Credit

This course is a prerequisite for the newspaper staff. The class focuses on news reporting, writing, and photography as well as word processing and desktop publishing computer skills. Assignments in writing and photography require a significant portion of work outside of class. For photography assignments, students need a camera. Photography study is on good news photos.

- I 1200
- II 1210
- III 1211
- IV 1212

YEARBOOK

Grades 9-12 1 Credit

This course is a prerequisite for the yearbook staff. The class focuses on feature writing and photography as well as word processing and desktop publishing skills. Assignments in writing and photography require a significant portion of work outside of class. For photography assignments, students need a camera. The focus of photography study is on good news photos.

- I 1470
- II 1221
- III 1222
- IV 1223

FILM STUDIES / FILMMAKING

Grades 10-12 1 Credit
Offered at AHS, WAHS

This course is very similar to a college film studies class. Students should have a serious interest in film. Students view, discuss, and analyze acclaimed classic and contemporary films to discover how great filmmakers produce their work. They study foreign films, art and documentary films, filmmaking techniques, and particular directors. Students produce their own film projects using digital video cameras and iMovie editing equipment.

- 1451

FILM STUDIES / FILMMAKING II

Prerequisite: Filmmaking I or TV Production I
Grades 9-12 1 Credit
Offered at AHS, WAHS

Students will explore advanced elements of the art of digital video production. With a focus on advanced techniques in lighting, composition, editing, and sound engineering, students will experience all

aspects of completing a high quality narrative or documentary film. Special emphasis on commercial film and the business of filmmaking will round out the course. Internships with local filmmakers and production companies will be available.
 1453

GAME STUDIES

Grades 9-12 1 Credit
Offered at AHS

This course aims to explore video games through a literary, analytical lens. Students should have some familiarity with gaming and also be interested in a critical study of games. Study will include genres, plot design, characters, and written critiques and discussions. Study will prepare students for the project of creating a game concept. It is expected that students will be able to play games at home, although the focus will remain on in-class analysis.

- 9199

HUMANITIES

Grades 9-12 1 Credit
Offered at AHS

This interdisciplinary course is about the relationships among music, art, literature, history, philosophy, and science. Personalized projects, trips to cultural centers, and individual research and reading programs supplement a traditional presentation of the products of human beings from Aristotle to Zappa. Participants should have, or be willing to have, a wide range of interests.

- I 1515
- II 1516
- III 1518

LIFE IN THE GARDEN

Grades 9-12 1 Credit
Offered at AHS

This is a cross curricular course that studies the concept of garden, both from the perspective as an iconic symbol in art, mythology, literature, architecture, and music as well as its more literal sense, studying the range of gardens in the contemporary world. Using multiple modalities and cooperative learning, students will research diverse gardens and gardening practices, including a scientific approach to soil analysis and irrigation as well as the cultivation of a student created garden.

- 9200

PHYSICAL EDUCATION, HEALTH AND DRIVER'S EDUCATION



Physical education plays a vital role in the student's development and growth. Here are some good reasons for active engagement with your health and physical education classes.

1. Health and PE are linked to good health.

The value of physical fitness can never be overstated. In physical educational classrooms, students learn the value of taking care of themselves through proper grooming, healthy eating, and regular exercise.

2. Health and PE are a preventive measure against disease.

Physical education in school is a preventive measure to teach students the value of regular exercise and healthy eating habits.

3. Health and PE are programs for muscle strength and fitness.

Physical education develops the student's motor skills and hand-eye coordination.

4. Health and PE promote academic learning.

Physical health allows students to function even better in classrooms. A good cardiovascular system developed from regular exercise promotes excellent blood and oxygen circulation. This means more nutrients circulate throughout the body, which includes the brain. This circulation produces longer attention span during classes.

5. Health and PE build self-esteem.

Students who are active in physical activities are more confident with themselves, according to most social school studies. In school, the physical education program introduces sport activities to students allowing them to make choices in which sport areas they want to get involved.

6. Health and PE develop cooperation, teamwork and sportsmanship skills.

Most physical education programs are holistic. The program allows students to interact toward a common goal.

7. Health and PE promote a physically active lifestyle.

The purpose of physical education is to instill in students, at an early age, the value of self-preservation and choosing a lifestyle that is good for both the mind and body.

Adapted from the position statement of the National Association for Sport and Physical Education.

Physical Education, Health, And Driver's Education

PHYSICAL EDUCATION I

Grades 9–12 .5 Credit
Required for Graduation

Physical Education I builds on the fundamental skills and skill combinations learned in Middle School. Students are given the opportunity to self-select wellness activities, demonstrate a depth of understanding of physical activity, and show competence in lifetime physical activities. Students are responsible for skill mastery in four content areas: team sports, individual sports, leisure, and rhythmic activities. They analyze and apply biomechanical principles to skilled movement and physiological principles to achieve and to improve physical fitness. Through record keeping, students are accountable for evaluating the benefits of physical activity. Students use appropriate social interactions and decision-making skills and demonstrate respect for differences in culture and abilities. Students understand and follow a physically active lifestyle that promotes good health and wellness for a lifetime.

..... 7310

PHYSICAL EDUCATION II

Grades 9–12 .5 Credit
Required for Graduation

Physical Education II builds on the fundamental skills and skill combinations learned in previous courses. Students are responsible for skill mastery in two content areas reflecting student interest. They analyze and apply biomechanical principles to skilled movement and physiological principles to achieve and to improve physical fitness. Students regularly evaluate and adjust goals that promote a lifetime of physical activity. Students use appropriate social interactions and decision-making skills and demonstrate respect for differences in culture and abilities. Students understand and follow a physically active lifestyle that promotes good health and wellness for a lifetime.

..... 7410

INTRODUCTION TO SPORTS MEDICINE

Prerequisite: Teacher recommendation; Biology I
Grades 11-12 1 Credit
Offered at WAHS

This course offers an introduction to students interested in learning about careers in sports medicine such as: athletic training, physical therapy, medical doctor, exercise physiology, and nutrition. The course introduces students to the theory of prevention, care, and rehabilitation of athletic injuries. Areas to be covered include: human anatomy and physiology, assessment and evaluation of athletic injuries, prevention of injuries, treatment and rehabilitation of injuries, therapeutic modalities, conditioning principles, and nutrition. Students gain useful experience by learning taping and evaluative techniques and by assisting in the training room after school.

Note: This course may not substitute for PE I or PE II as a graduation requirement.

..... 7680

TEAM SPORTS

Grades 9-12 1 Credit
Offered at WAHS

This course provides a learning experiences that will lead to the development of the basic skills in various team sports. The units may include basketball, volleyball, flag football, soccer, speedball, and softball. Content will include game strategies, fundamental skills, history, rules, safety, officiating, drills and mini-games. Upon completion of the course, students will be able to demonstrate basic skills in selected sports, demonstrate knowledge of history, rules, safety and will be able to demonstrate team play concepts and strategies in game situations.

Fees apply for this course.

Note: This course may NOT substitute for PE I or PE II as a graduation requirement.

..... 7646



Interested in Sports Medicine?
Monticello High School and Albemarle High School offers 2 Sports Medicine courses. You can find more information in the Health and Medical Sciences subsection of the Career and Technical Education (CTE) section of this book. (See page 29).



Health Education II includes the classroom portion of Driver's Education.



Parental Requirements and Driver's Education

All parents must participate in a FREE Parent Seminar for Driver Education prior to their child taking the Behind-the-Wheel portion of driver's education. The seminar is a requirement for families with students pursuing a driver's license. Any student registering for Behind-the-Wheel training must provide the certificate of attendance from the Parent Seminar. The seminars will be offered once a month at all three comprehensive high schools in the county. Register online at www.opendoors1.org, select class number 5001, or call (434) 975 9451 or (434) 975 9450.

HEALTH EDUCATION I

Grades 9-12 **.5 Credit** **Required for Graduation**

The goal of health education is to help students acquire an understanding of health concepts and skills and apply them in making healthy decisions to improve, sustain, and promote personal, family, and community health. Health Education I focuses on knowledge, examines attitudes, and formulates lifestyle behaviors. Students integrate a variety of health concepts, skills, and behaviors to plan their personal health goals. Potential areas of study include wellness, injury prevention and first aid, body systems, disease prevention and hygiene, and family life education.

..... 7320
Virtual TBA

HEALTH EDUCATION II

Prerequisite: Approval by High School Counseling Director is required for 9th graders. For 9th graders to be considered, they must have turned 15 by September 1st. Enrollment is also based on space availability. Students should see the high school counselor for information.

Grades 10-12 **.5 Credit** **Required for Graduation**

The goal of health education is to help students acquire an understanding of health concepts and skills and apply them in making healthy decisions to improve, sustain, and promote personal, family, and community health. Health Education II continues to build on the knowledge, attitudes, and lifestyle behaviors examined in Health I. Students integrate a variety of health concepts, skills, and behaviors to plan their personal health goals. Potential areas of study include substance abuse, gang and violence intervention, consumer health, community health, and family life education.

Health Education II includes the classroom portion of Driver's Education. At the present time, Health II includes instruction in Driver's Education and Health Standards of Learning. This is a graduation requirement and students must participate in the entire course. Students who have already completed Driver's Education and/or hold a driver's license are still required to participate in the entire Health II course.

The virtual course does NOT include Driver's Education.
See below for more information about Driver's Education.
Fees apply for this course.

..... 7425
Virtual TBA

DRIVER'S EDUCATION

■ Part I Classroom

During the sophomore year, the 36-hour driver's education classroom instruction component is provided as a part of the Health II curriculum (see above listing for Health II). Students are cautioned not to be absent during this period, as excuses from parents and doctors do not exempt one from the DMV requirement for classroom instruction.

■ Part II Behind-the-Wheel

Students should be scheduled for Behind-the-Wheel around 16 years of age. Students may not get their license until they have had their permit for 9 months, and they are at least 16 years and 3 months old. Students may get a learner's permit from DMV at 15½ years of age.

Tuition is charged for this portion of the class. Students must have completed or at least begun the 36-hour Part I classroom portion before beginning Behind-the-Wheel training. Driver's Education Behind-the-Wheel will be offered at the three comprehensive high schools in the morning before school and in the afternoon after school throughout the school year. Please call one of the three comprehensive high schools to take Behind-the-Wheel.

Note: Parents are required to attend a free seminar before their child takes the Behind-the-Wheel portion of driver's education (see box at left).

AFRICAN CULTURE, MUSIC & DANCE

Grades 10-12

1 Credit

Offered at WAHS

This course is for students interested in learning about the culture of West Africa through music and dance. Previous dance experience is not required. Students study dance styles and rhythms indigenous to various ethnic groups from Senegal, Gambia, Ghana, Guinea, and Mali as well as some Caribbean rhythms which have a West African influence. They also choreograph dances, design costumes based on traditional dress, build props, and perform for the school community.

Note: This course may not be substituted for PE I or PE II. Fees apply for this course.

I 9321

II 9323

FITNESS / WEIGHT TRAINING I & II

Prerequisite: PE I and/or PE II; Approval of instructor

Grades 11-12 1 Credit per year

This is a weightlifting class designed to teach weightlifting theory and technique in combination with personal fitness training. Students establish personal weightlifting goals and design and implement individual weightlifting programs. Student progress is monitored through self, peer, and instructor evaluation. A change of clothes is required for class.

Note: This course may not substitute for PE I or PE II as a graduation requirement. Students who have not previously received credit for Weight Training will be given scheduling priority.

I 7677

II 7676

FITNESS / YOGA I & II

Prerequisite: Approval of instructor; PE I and/or PE II

Grades 11-12

1 Credit

Offered at AHS, WAHS

Fitness Yoga is an elective course for upperclassmen that have completed PE I and PE II. Students interested in Fitness Yoga must obtain instructor's approval prior to the beginning of the semester. This class involves instruction in physical postures with the incorporation of breath control and conscious relaxation (known as Hatha Yoga). There is an emphasis on stress management, increased vitality, and physical well-being.

Note: This course may not substitute for PE I or PE II as a graduation requirement.

I 7670

II 7652



Unless otherwise indicated, all courses are offered at all comprehensive high schools. Classes are scheduled by semester so that the health and the physical education components occur and are graded separately.



Course Descriptions

Unless otherwise indicated, all courses are offered at all high schools.



“History Is Useful in the World of Work”

—Peter Sterns, American Historical Association

The study of history and social science is vital in promoting a civic-minded, democratic society. The National Council for Social Studies proposes that social studies courses support college, career, and civic life readiness by focusing on planning inquiry, evaluating sources, using evidence in decision making, communicating conclusions, and taking informed actions.

Courses in History and Social Science are designed to

- develop the knowledge and skills of history, geography, civics, and economics that enable students to place the people, ideas, and events that have shaped our state, nation, and world in perspective;
- support students in developing an understanding of diverse cultures, and of a shared humanity.
- prepare students for informed, responsible, and participatory citizenship;
- enhance students’ ability to seek and recognize patterns and complex relationships such as change and continuity, conflict and cooperation, choice and consequence, and systems.
- develop students’ skills in inquiry, debate, discussion, writing, and critical reading.

Social Studies offerings in high school provide students with several means to explore new disciplines and expand on their work K-8 through both required courses and electives. Social science courses introduce complex content and support the development of critical thinking skills that are essential for student success in and beyond school as students grow as lifelong learners.

WORLD HISTORY I TO 1500

Grade 9

1 Credit

Offered at AHS, WAHS



This is a broad survey course designed to provide each student with a historical overview and analysis of the major political, social, and economic events of the world. Students trace the major patterns of world history from the prehistoric period through the European Middle Ages. Concepts, historical trends, and cycles are emphasized.

Standard 2343

Academic/Advanced 2346

Honors 2350

WORLD HISTORY II FROM 1500 TO PRESENT

Grade 10

1 Credit



This is a broad survey course designed to provide each student with a historical overview and analysis of the major political, social, and economic events of the world. Students trace the major patterns of world history from about 1500 CE (Middle Ages) through current times.

Standard 2334

Academic/Advanced 2338

Honors 2349

WORLD HISTORY, Advanced Placement

Prerequisite: World History I at AHS;

1 Credit

Grades 10-12; Grade 9-12 at MoHS



This course is an extensive and intensive examination of global societies, social structure, and the themes and processes that have shaped our world since the Middle Ages. The students learn the analytical and writing proficiencies necessary to succeed on the Advanced Placement World History exam.

Students are expected to take the AP exam. The exam fee is approximately \$89 per test. Students who do well on this test receive college credit or superior placement at participating colleges.

Note: This course may be taken in place of World History from 1500 to Present. Students electing this course either take the Standards of Learning test for World History from 1500 to Present or earn an AP score of 2 or better to earn a verified credit. At MoHS this course is taken in place of World History I.

..... 2339

History / Social Sciences

EUROPEAN HISTORY, Advanced Placement

Grades 10-12 **1 Credit**
Offered at MoHS, WAHS



AP European History is designed to challenge the highly motivated student who wants to experience college level work. Students will study European History in global context from c. 1450 (high Renaissance) to the Contemporary Age. The goals of this course are to develop an understanding of some of the principal themes in modern European history and an ability to analyze historical evidence and to review the basic factual narrative.

Students are expected to take the AP exam. The exam fee is approximately \$89 per test. Students who do well on this test receive college credit or superior placement at participating colleges.

Note: This course may be taken in place of World History from 1500 to Present. Students electing this course either take the Standards of Learning test for World History from 1500 to Present or earn an AP score of 2 or better to earn a verified credit.

..... 2399

VIRGINIA AND US HISTORY

Grade 11 **1 Credit**



This is an integrated course designed to help students develop a comprehensive view of American literature, history, and culture. In gathering together the many threads of American culture, students leave this course with a better understanding of who they are and what it means to be an American.

Through a variety of learning experiences, students discover relevant connections among movements in American art, literature, music, economics, and politics. This course integrates standards from English 11 and Virginia and United States History, thus preparing students for End-of-Course tests in each subject.

Fees apply for this course.

Standard 2360
Academic/Advanced 2358

VIRGINIA AND US HISTORY, Advanced Placement

Grade 11 **1 Credit**



This is an integrated course designed to help students develop a comprehensive view of American literature, history, and culture. This course is highly rigorous and prepares students to take AP exams. Students concentrate on reading and analyzing historical material, weighing historical evidence and interpretation, reading and analyzing works of literature, and synthesizing and evaluating information in analytical writing.

Students are expected to take the AP exam. The exam fee is approximately \$89 per test. Students who do well on this test receive college credit or superior placement at participating colleges.

Note: Students may elect to take the Standards of Learning End-of-Course tests for Virginia and United States History and English 11. A score of 2 or better on the AP exam earns a verified credit.

Fees apply for this course.

..... 2319

VIRGINIA AND US GOVERNMENT

Grade 12 **1 Credit**

Subject matter cover the rationale, foundations, and operations of U.S. government. The interrelationships among the national, state, and local levels of government are presented. Economic systems are compared and other forms of government are studied.

Standard 2440
Academic/Advanced 2444

HISTORY 121/122

UNITED STATES HISTORY

1 Credit (6 PVCC credits)

Offered at AHS & MoHS

This college course surveys United States history from its beginnings to the present. The student is responsible for purchasing the college textbook associated with this course.

..... 2363

US GOVERNMENT AND POLITICS Advanced Placement

Prerequisite: See School Counselor
Grade 12 **1 Credit**

The Advanced Placement U.S. Government and Politics makes demands on a student equivalent to an introductory college course. The course covers the basic concepts, principles, and institutions of American government, the political process, and the formation and implementation of public policy.

Students are expected to take the AP Exam. The exam fee is approximately \$89 per test.

Fees apply for this course.

..... 2445

POLITICAL SCIENCE

U.S. GOVERNMENT 211/212

Grade 12 **1 Credit (6 PVCC credits)**

Offered at AHS & MoHS

This college course teaches structure, operation, and the process of national, state, and local governments. It includes in-depth study of the three branches of the government and public policy. The student is responsible for purchasing the college textbook associated with this course.

..... 2458

WORLD GEOGRAPHY

Grade 9 1 Credit
Offered at MoHS

World Geography provides a rigorous curriculum that introduces students to the study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. The course is centered on the world's peoples and their cultural characteristics, landforms, climates, economic development, migration, and settlement patterns. Spatial concepts of geography will be used as a framework for studying interactions between humans and their environments. Students will also learn about the methods and tools geographers use in their science and practice. The skills of analytical reading, writing, and research will be key components of this course and will be practiced daily.

Academic/Advanced 2109
Honors. 2213

HUMAN GEOGRAPHY Advanced Placement

Grades 9–12 1 Credit
Offered at MoHS and AHS, (10-12 only)

AP Human Geography provides a rigorous curriculum that introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use. Students will engage in class discussions and writing assignments that demonstrate their understanding of the world and human interaction with the environment.

..... 2212

HISTORY THROUGH FILM

Grades 11-12 1 Credit
Offered at AHS, WAHS

This course will use film/movies as a medium to investigate the history of the United States and the World. Students are asked to explore the boundaries between history and film. Movies and film are given the same analysis and interpretation as any other sources and used as a medium to learn about history. Specific focus is on "valid" historical films, offering glimpses into the social, political, and cultural moments when they were created. Students will examine ways in which films shape and influence understanding.

..... 2453

ECONOMICS AND PERSONAL FINANCE*

Grades 11-12 1 Credit

Students learn how to navigate the financial decisions they must face and to make informed decisions. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship and career success. Students will also explore entrepreneurship as they learn the skills needed to plan, organize, manage, and finance a small business.

* Graduation requirement for students entering the 9th grade in 2011 and beyond.

..... 6123
Virtual 6123V

MICRO ECONOMICS AND VIRGINIA PERSONAL FINANCE Advanced Placement

Grade 10–12 1 Credit

In this year-long course, students will complete the curriculum for both AP Micro Economics and Virginia Personal Finance. Students will develop an understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within larger economic systems. Economic studies focus on the nature and functions of product markets, and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy. Personal Finance studies will focus on how individuals navigate financial decisions in an informed manner. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship and career success.

* This course meets the economic & personal finance graduation requirement for students entering the 9th grade in 2011 and beyond.

..... 2808

PHILOSOPHY

Grades 10-12 1 Credit
Offered at WAHS

This class explores western philosophy from the Greeks to the present. Students explore ethics, epistemology, civitas, religion, freedom, and responsibility as central ideas or "themes." Individual readings are required and activities include group discussions, problem solving, and several short writing assignments.

..... 2950

PRACTICAL LAW

Grades 10–12 1 Credit
Offered at WAHS

This course provides the high school student with the practical legal background one needs to function as an adult. It enables the young adult to foresee and avoid legal problems and to obtain professional help when necessary. Topics covered include contracts, property, marriage, wills, civil and criminal procedure, and consumer protection.

..... 2420

ISSUES OF THE MODERN WORLD

Grades 11-12 1 Credit
Offered at AHS

This is an elective course recommended for engaged, motivated, inquisitive students who are interested in the study of current events and recent American and world history. Topics, will be discussed, explored, researched, and analyzed using readings (newspaper articles, academic journals), internet research, films (feature and documentary), broadcast news reports, and class discussions. Topics may include: modern terrorism, the modern global economy (globalization), the environment, America's "culture wars," gun control, the modern Middle East, problems and issues in American foreign policy, and more.

..... 2978



LEADERSHIP

Grades 9–12 1 Credit

Students improve their own personal leadership abilities by taking on responsibility for planning and implementing student government proposals and activities throughout the year. Students work with homeroom representatives and class officers in fulfilling the tasks of student government. They determine issues of concern to students, conduct meetings to elicit student opinions, write policy proposals, and represent student opinions to faculty and principals. They also plan and put on various student activities such as Spirit Week, The Multicultural Fair, Black History Month, and Community Service.

- I 8288
- II 8287
- III 8289
- IV 8290

ETHNIC STUDIES

Grades 9-12 1 Credit
Offered at AHS

The study of the history of people of color in America from their perspective. Ethnic Studies focuses on the lives of African-Americans, Latinos/as, Asian-Americans, Native Americans and those Americans of Middle Eastern descent. Our focus in this class will be on the similarities between the communities and their struggles for equality in America.

..... 2992

SOCIOLOGY

Grades 10–12 1 Credit

Offered at AHS, WAHS

The study of sociology is designed to examine the ways people interact with one another. Sociology involves learning about relationships within groups such as the social class, relationships within social institutions such as the family, and the organization of societies. Additionally, sociology deals with varied and vital issues and social problems of society. The subject matter of sociology, therefore, is a study of man and his relationship to human groups and institutions.

..... 2500

PSYCHOLOGY

Grades 10–12 1 Credit

This course is designed to give the student an introduction to the concepts, theories, and applications of psychology. Topics covered include theories of learning, memory, sensation, perception, personality, abnormal psychology, therapy, and current issues in psychology. In addition to being an introduction to psychology, the course is also designed to equip students with skills to improve their relations with friends of both sexes, parents, and other adults. Through the study of psychology, students gain a better understanding of themselves and others, as well as an acceptance of individual differences. This course stresses reading, developing critical thinking skills, and writing as a demonstration of comprehension.

..... 2900

PSYCHOLOGY
Advanced Placement

Grade 10–12 1 Credit

This course provides an introduction to the psychological topics and principles taught in an introductory psychology class at the college level. Specific topics addressed include: the biological bases of behavior; sensation and perception; states of consciousness; learning, memory, and intelligence; language development; motivation and emotion; human development; personality theory; social psychology; abnormal psychology and methods of therapy; current issues; and applications of the discipline. Emphasis will be placed on reading and writing, evaluating and conducting research, and completing independent projects.

Students are expected to take the AP exam. The exam fee is approximately \$89 per test.

..... 2930

PSYCHOLOGY APPLICATIONS AND RESEARCH

Prerequisite: AP Psychology
Grades 11-12 1 Credit
Offered at WAHS

This course provides students the opportunity to continue their study of topics introduced in AP Psychology with added emphasis on independent research and the study of current advances in the field. Students will form research groups that select one general topic (e.g., learning, developmental psychology, social psychology) each quarter to study in greater depth. They will then narrow their focus to a specific application and will conduct research using one of the methods psychologists typically employ (e.g., observation, survey, field or lab experiments.) The groups will collect data, analyze the results, and report their findings following the American Psychological Association guidelines.

..... 2911



Why Study Math?

Students today require more rigorous mathematical knowledge and skills to pursue higher education, to compete in a technologically sophisticated connected work-force, and to be informed citizens. By taking a concept-centered approach to instruction and utilizing ACPS K-12 Essential Standards, teachers help build capacity in students to make connections across content areas. This approach will help students gain an understanding of fundamental ideas in arithmetic, measurement, geometry, probability, data analysis and statistics, and algebra and functions while developing proficiency in mathematical skills.

Students will also learn to use a variety of methods and tools to compute, including paper and pencil, mental arithmetic, estimation, and calculators. Graphing utilities, spreadsheets, calculators, computers, and other forms of electronic information technology are now standard tools for mathematical problem solving in science, engineering, business and industry, government, and practical everyday affairs. Hence, the use of technology must be an integral part of teaching, learning, and assessment.

At the heart of developing the mathematical capacity of our students, Mathematics Habits of Mind and Lifelong Learner Standards, both developed by ACPS, are embedded within mathematical process goals congruent with goals set forth by the Virginia Department of Education and the National Council of Teachers of Mathematics. Therefore, courses in mathematics are designed to build students' ability to:

- analyze situations in mathematical terms; pose and solve problems based on observed situations
- select and use various types of reasoning to develop and evaluate mathematical arguments and proof
- organize and consolidate mathematical thinking through precise verbal, written, and graphical communication
- understand how mathematical ideas interconnect and build on one another to produce a coherent whole
- use representations to model and interpret physical, social, and mathematical phenomena
- evaluate and use technology appropriately as a tool to support and apply the problem solving process

Who commonly uses math?

Everybody uses math whether they realize it or not. Shoppers use math to calculate change, tax, and sales prices. Cooks use math to modify the amount a recipe will make. Vacationers use math to find time of arrivals and departures to plan their trips. Homeowners use math to determine the cost of materials when doing projects.

Can I get a good job without learning a lot of math?

In all honesty, anything is possible. However, fewer labor-intensive jobs are available in today's economy. Workers in those fields are being replaced by machinery and robotics. Even when those jobs are available, the pay is usually substandard. In order to gain successful employment, technical skills must be learned. Someone has to fix all of those machines and robots.

What are employers looking for?

Employers are looking for three basic traits. They want their employees to be able to reason, work with technical equipment, and communicate their thoughts with other employees. It is clear that math deals with developing reason and working with technical equipment. It is not so clear how math affects communication. Successfully using math can improve the ability to speak and write more clearly. Language, at least the type needed for work, tends to be extremely structured and mathematical ability helps deal with that structure.

ALGEBRA I

Prerequisites: Standard: 8th grade Math and teacher recommendation; Advanced: Teacher recommendation

Grades 9-12 **1 Credit**



Algebra I develops the properties and structure of the real-number system. Content includes linear equations, functions, inequalities, polynomials, special products, graphs, and quadratic equations.

Graphing calculators are used and problem-solving techniques are stressed. A student can earn one math credit and one verified mathematics credit upon successful completion of the course and the SOL test.

Standard 3130
Advanced..... 3136

ALGEBRA 1 PART 1

Grades 9-12 **1 Elective Credit**

Part I is the first year course for Algebra I. This is an individualized and comprehensive course that covers the concepts and skills necessary to be successfully complete both parts of Algebra I. Successful completion of this course will result in the student being awarded one (1) elective credit.

..... 3131

ALGEBRA 1 PART 2

Grades 9-12 **1 Credit**

Part II is the second year course for Algebra I. This is an individualized and comprehensive course that covers the concepts and skills necessary to be successfully complete both parts of Algebra I. Successful completion of this course will result in the student being awarded one (1) math credit, the second Math credit in this sequence..

..... 3132

SKILLS DEVELOPMENT MATH / ALGEBRA LAB

Grade 9 **1 Math Elective Credit**

This is an individualized and comprehensive course that covers the concepts and skills necessary to be successful in Algebra I.

I 3301
II 3302
Algebra Lab 3306



NOTE: In mathematics the county curriculum is the same regardless of level. Classes are to complete the same objectives each semester whether standard, advanced, or honors. It is the depth of theory and sophistication in the teaching and assignments that differentiate the levels of instruction.

Due to the sequential nature of math courses, it is important that students have solid foundations in the algebra courses.

Unless otherwise indicated, all courses are offered at all high schools.

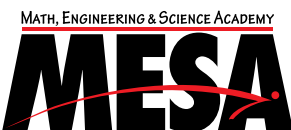


Standards of Learning Test required.



Do you love math and try to figure out how things work? Find out about Albemarle County's Math, Engineering and Science Academy (MESA) on page 8.

Academy students explore science and mathematics through the lens of engineering research and design.



Students taking Advanced Placement courses are expected to take the AP Exam. The exam fee is approximately \$89 per test.

ALGEBRA II

Prerequisites: Teacher recommendation; Algebra I
Grades 9-12 **1 Credit**



The development of the topics of Algebra I is continued in greater depth in Algebra II. There

is a more in-depth examination of relations and functions including linear, quadratic, polynomial, radical, exponential and logarithmic functions, conic sections, and matrices. The course also includes irrational numbers, properties of radicals, systems of linear equations, and linear inequalities. There is extensive use of technology, including the graphing calculator, and emphasis is placed on problem solving. A student can earn one math credit and one verified mathematics credit upon successful completion of the course and the SOL test.

Most students need a "B or better" average in previous math courses to be successful in the following higher-level mathematics courses.

Standard 3135
Advanced..... 3102
Honors..... 3104

ALGEBRA, FUNCTIONS, AND DATA ANALYSIS (AFDA)

Prerequisite: Algebra I
Grades 9-12 **1 Credit**

This course may be used to fulfill the requirements of Advanced Studies, Standard, and Modified Standard Diplomas.

Within the context of mathematical modeling and data analysis, students will study functions and their behaviors, systems of inequalities, probability, experimental design and implementation, and analysis of data. Data will be generated by authentic applications arising from science, business, and finance. Students will solve problems that require the formulation of linear, quadratic, exponential, or logarithmic equations or a system of equations. The infusion of technology (graphing calculator and/or computer software) in this course will assist in modeling and investigating a transformational approach to functions and data analysis.

..... 3134



Indicates Standards of Learning Test (SOL)

GEOMETRY

Prerequisites: Teacher recommendation; Algebra I
Grades 9-12 **1 Credit**



The properties of plane and three-dimensional figures are studied in this course. Students will learn constructions, logical and deductive reasoning, angle

relationships; parallel and perpendicular line relationships, congruence and similarity of polygons, triangle relationships and inequalities, and attributes and properties of quadrilaterals. Also included are properties and attributes of polygons; right triangle theorems and relationships; applications and practical problems involving circles and chords; tangents; secants; area, volume, and surface area of three dimensional objects; drawing two dimensional figures from three dimensional objects; perspective and scale drawings; coordinate geometry; and symmetry, rotation, and reflection of an object. Technology is used to reinforce geometric concepts throughout the course.

The Geometry SOL test is given upon completion of this course. A student can earn one math credit and one verified mathematics credit upon successful completion of the course and the SOL test.

Standard 3143
Advanced 3145
Honors 3147

COLLEGE ALGEBRA AND TRIGONOMETRY

Prerequisites: Teacher recommendation; Algebra II and Geometry
Grades 10-12 **1 Credit**

The emphasis is on functions and their graphs, including the six trigonometric functions and their applications. After a review of functions and fundamental concepts of the real-number system, quadratic, polynomial, rational, exponential, and logarithmic functions are studied and graphed. The conics are studied in detail. Other topics studied include finding real and complex roots to polynomial equations, theory and application of logarithms, and partial fractions. The course emphasizes problem solving and the use of technology, including the graphing calculator, the CBL, and appropriate software.

Standard 3171
Advanced..... 3164

HONORS TRIGONOMETRY

Prerequisite: Algebra II, Geometry

Grades 9-12 **1 Credit**

The course involves a comprehensive study of trigonometric definitions, applications, graphing, and solving trigonometric equations and inequalities. There is additional emphasis on oral and written communication related to the language of mathematics, logic of procedure, and interpretation of results. Students use graphing calculators, computers, and other materials in learning activities. Further, graphing utilities enhance students' understanding of realistic applications through modeling and aid in the investigation of trigonometric functions and their inverses. They also provide a powerful tool for solving/verifying trigonometric equations and inequalities.

..... 3155

APPLIED COLLEGE MATHEMATICS

Prerequisite: Algebra II

Grade 12 **1 Credit**

Offered at AHS, WAHS

Applied College Mathematics is a course that contains high-interest contextualized content. The course will add to students' preparation for college and the workplace by enhancing skills in number and quantity, functions and algebra, geometry, and statistics and probability. This is accomplished by using skills essential for college and workforce success such as adaptability, flexibility, creativity, innovation, leadership, team work, collaboration, and work ethic. Students will research, collect, and analyze data; develop and support ideas and conjectures; investigate, evaluate, and incorporate appropriate resources; and determine appropriate problem-solving approaches and decision-making algorithms in a variety of real-world contexts and applied settings.

..... 3139

PROBABILITY AND STATISTICS

Prerequisite: Algebra II; Teacher recommendation

Grade 12 **1 Credit**

Offered at AHS and MoHS

The course presents topics in displaying and analyzing data using different statistical measurements and testing techniques. The topics in probability include methods of counting, distribution curves, and elementary probability. Quantitative literacy is incorporated and emphasized within the course. The topics in probability and statistics are at the concrete level using manipulatives and simulations.

Standard 3190

Advanced 3193

STATISTICS, Advanced Placement

Prerequisite: Teacher recommendation; Algebra II

Grades 11–12 **1 Credit**

Topics for the course are grouped around four themes—exploratory analysis, planning a study, probability, and statistical inference. Within each theme, the topics stress statistical thinking and use of technology, primarily the graphing calculator and computers with appropriate software. This course prepares students to take the Advanced Placement Statistics exam.

Students are expected to take the AP exam. The exam fee is approximately \$89 per test.

..... 3192

ELEMENTARY STATISTICS / MTH 157

Prerequisite: Geometry, Algebra II

Grades 9-12 **1 Credit**

Offered at WAHS

Students will learn elementary statistical methods and concepts including descriptive statistics, estimation, hypothesis testing, linear regression, and categorical data.

..... 3198

MATHEMATICAL INFERENCE AND APPLICATIONS (Discrete Math)

Prerequisite: Teacher recommendation and Geometry and Algebra II

Grade 12 **1 Credit**

Offered at AHS, WAHS

Discrete mathematics is the mathematics of decision making. Connections between contemporary mathematics and modern society will be presented. There will be an emphasis on statistics as well as applications to business and management, social choices and decision making, information codes, patterns in growth, and patterns in art.

Standard 3119

Advanced 3120

COMPUTER SCIENCE A Advanced Placement

Prerequisite: Algebra II or Programming

Grades 11–12 **1 Credit**

Offered at AHS, WAHS

This course covers object-oriented programming methodology with an emphasis on problem solving and algorithm development and is meant to be the equivalent of a first-semester course in computer science. It also includes the study of data structures and abstraction.

Students are expected to take the AP exam. The exam fee is approximately \$89 per test.

..... 3219



All students who are recommended for Calculus, will take AB Calculus following the Honors Math Analysis course. Those students who are juniors or younger, may take BC Calculus as a Sequential course to AB Calculus. Students who are extremely talented and gifted in mathematics have the option of taking the BC exam at the end of the AB Calculus Course. If a 4 or 5 is received (this would be the same requirement if a student went to UVA), those students may skip the BC Calculus course and go immediately into college-level calculus courses.

MATH ANALYSIS (Pre-Calculus)

Prerequisite: Teacher recommendation; Algebra II or College Algebra and Trigonometry or Honors Trigonometry (for students entering High School in 2010)
Grades 11-12 **1 Credit**

This course covers many of the topics previously introduced in the algebra courses but in much greater depth and with more emphasis on derivation and analysis of function. The course includes a review of the properties of the real and rational number systems, the conic sections and their properties, and various functions and their properties. Students are introduced to several other types of functions including polynomial, logarithmic and exponential, and circular and trigonometric. Students work with complex numbers and with the polar coordinate system. The concept of the limit is introduced through analysis of sequence and series. Limits of functions are introduced and applied to the development of the derivative. Basic differential calculus and its applications are introduced as well. The course emphasizes problem solving and analysis by integrating the use of technology including the graphing calculator.

Honors **3162**

CALCULUS, HONORS

Prerequisite: Honors Math Analysis
Grade 11-12 **1 Credit**
Offered at MoHS

This course is concerned with developing the student's understanding of the concepts of calculus and providing experience with its methods and application. It emphasizes a multi-representational approach to calculus with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally. Technology, especially graphing calculators, is used regularly by students to reinforce the relationships among the multiple representations of functions, to confirm written work, to implement experimentation, and to assist in interpreting results. The topics studied in this course include functions, graphs, limits, asymptotic and unbounded behavior, continuity, concept and definition of derivative, derivative as a function, computation and applications of derivatives, slope fields, Riemann sums, interpretations and properties of definite integrals, applications of integrals, Fundamental Theorem of Calculus, and techniques of anti-differentiation.

Students who are extremely successful in this course are expected either to take the AP Exam or to enroll in AP Calculus AB the following year.

. **3175**

CALCULUS

Advanced Placement AB

Prerequisite: Math Analysis; Teacher recommendation
Grade 11-12 **1 Credit**

This course is concerned with developing the student's understanding of the concepts of calculus and providing experience with its methods and application. It emphasizes a multi-representational approach to calculus with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally. Technology, especially graphing calculators, is used regularly by students to reinforce the relationships among the multiple representations of functions, to confirm written work, to implement experimentation, and to assist in interpreting results. The topics studied in this course include functions, graphs, limits, asymptotic and unbounded behavior, continuity, concept and definition of derivative, derivative as a function, computation and applications of derivatives, slope fields, Riemann sums, interpretations and properties of definite integrals, applications of integrals, Fundamental Theorem of Calculus, and techniques of anti-differentiation.

The course prepares students to take the Advanced Placement AB Calculus exam given by ETS. Students are expected to take the AP exam. The AP exam fee is approximately \$89 per test.

. **3177**

CALCULUS

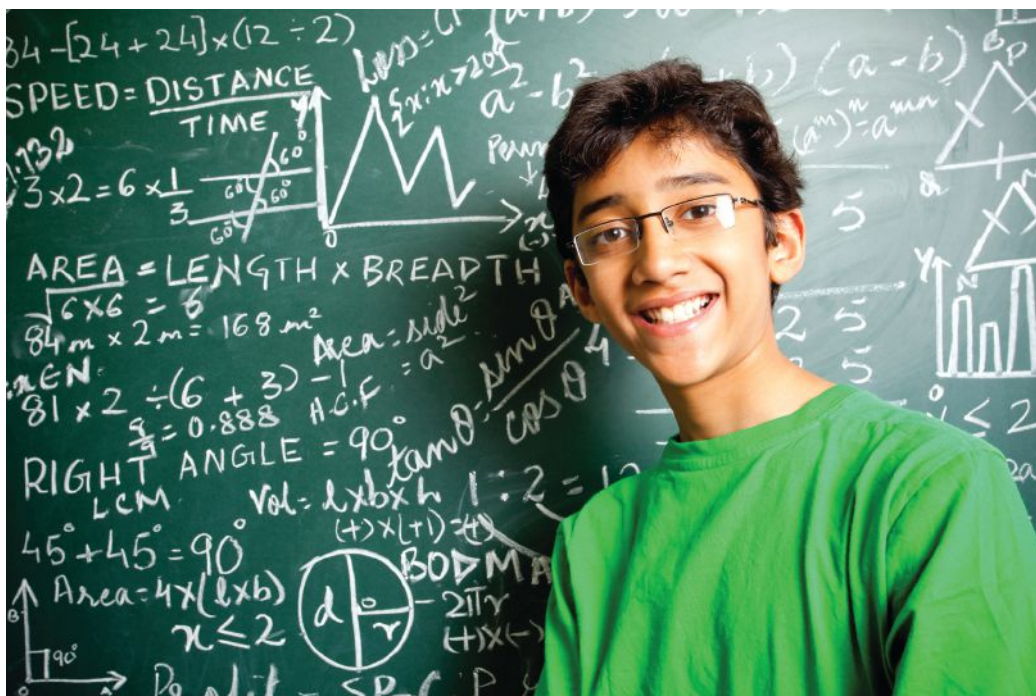
Advanced Placement BC

Prerequisite: Calculus AB; Teacher recommendation
Grade 12 **1 Credit**

Calculus BC will include a quick review of all topics covered in AB Calculus and sequentially will cover the additional topics not covered in the year long AB Course including parametric equations, polar curves, infinite series, L'Hopital's Rule, and vectors. The course will also explore the rudiments of multivariable calculus and differential equations (sequential courses to BC Calculus). Similar to AB Calculus, BC is also concerned with developing the students' understanding of the concepts of calculus and providing experience with its methods and application. This course emphasizes a multi-representational approach to calculus with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally.

Students are expected to take the BC AP exam. The exam fee is approximately \$89 per test.

. **3178**



Indicates PVCC Dual Enrollment

Dual Enrollment offers the student credit through Piedmont Virginia Community College (PVCC) as well as high school credit for courses offered during the regular school day at the high school. Dual Enrollment/Credit courses are weighted as college/dual enrollment courses. See your school counselor for more information.

VECTOR CALCULUS / MTH 277



Prerequisite: Successful Completion of AB and/or BC Calculus

Grades 9-12 .5 Credit

Offered at AHS

Presents vector valued functions, partial derivatives, multiple integrals and topics from the calculus of vectors. Includes Greens theorem, Stokes theorem and the Divergence theorem. Designed for mathematical, physical and engineering science programs.

..... 3174

ORDINARY DIFFERENTIAL EQUATIONS / MTH 279



Prerequisite: Vector Calculus/ MTH 277

Grades 9-12 .5 Credit

Offered at AHS

Introduces ordinary differential equations. Includes first order differential equations, second and higher order ordinary differential equations with application. Also includes Laplace transforms and introduces eigenvalues and eigenvectors in solutions of systems. Designed for mathematical, physical and engineering science programs.

..... 3188

PRECALCULUS 1 / MTH 163



Prerequisite: 1). Qualifying score on DE for 163 Math VPT 2). SAT math score 520+ 3). ACT Math score 22+

Grade: 12 .5 Credit (3 College Credits)

Offered at AHS

Covers topics in algebra such as equations and inequalities, graphing and functions, exponents and logarithms, systems of equations, inequalities, linear programming, and matrices.

..... 3169

APPLIED CALCULUS / MTH 271



Prerequisite: Successful completion of Precalculus I / Math 163

Grade: 12 .5 Credit (3 College Credits)

Offered at AHS

Covers topics in applied calculus for business, life sciences, and social sciences. It includes description and application of functions, limits, derivatives, graphing, and integrals.

The student is responsible for purchasing the college textbook associated with this course.

..... 3180

Course Descriptions



Why Study Science?

Scientific investigation and discovery satisfies humankind's quest for knowledge and understanding in order to preserve and enhance the quality of the human experience. The National Academies of Sciences proposes that science courses support college and workforce readiness by focusing on developing skills in asking questions and defining problems, developing and using models, planning and carrying out investigations, analyzing and interpreting data, constructing explanations and designing solutions, and engaging in argument through evidence.

Courses in science will help students to achieve the following objectives:

- Develop and use an experimental design in scientific inquiry.
- Use the language of science to communicate understanding.
- Investigate phenomena using technology.
- Apply scientific concepts, skills, and processes to everyday experiences.
- Experience the richness and excitement of scientific discovery of the natural world through the collaborative quest for knowledge and understanding.
- Make informed decisions regarding contemporary issues.
- Develop scientific dispositions and habits of mind.
- Develop an understanding of the interrelationship of science with technology, engineering and mathematics.
- Explore science-related careers and interests.

High school science offerings provide students with multiple contexts in which to explore new disciplines and expand on their K-8 work through both required courses and electives. Science courses introduce complex content and support the development of critical thinking skills that are essential for student success in and beyond school as students grow as lifelong learners.



The introductory science courses do not have to be taken in the order below. However, science teachers do recommend the following sequence. A student who starts the science sequence with Earth Science has the possibility of earning a verified credit for the course and needs only one additional verified science credit. By starting with Biology, the science sequence must include Chemistry and Physics.

9th grade - Earth Science
 10th grade - Biology
 11th grade - Chemistry
 12th grade - Physics

The math prerequisite for Biology I (Algebra I) allows the student to continue in the chemistry/physics sequence. Due to the mathematical nature of chemistry and physics, there are math prerequisites for these courses. Students have either completed or are taking Algebra II for enrollment in Chemistry. Students who elect to take Biology in the 9th grade must have teacher recommendation and Algebra I and are only eligible for Honors Biology.

NOTE: The county science curriculum is the same regardless of level. Classes are to complete the same basic objectives each semester regardless of level. It is the depth of theory and sophistication in the teaching and assignments that differentiates the levels of instruction.

EARTH SCIENCE

Grades 9–12 **1 Credit**



This course stresses the major concepts of geology, oceanography, astronomy, and meteorology. The primary objectives are to enhance the student's understanding and appreciation of earth's systems and, through this knowledge, to encourage students to become responsible citizens. Laboratory experiments are used to teach conceptual themes.

Standard 4212
Academic/Advanced 4215
Honors 4216

BIOLOGY I

Prerequisites Honors: Algebra I, **Advanced/Honors level:** Geometry taken concurrently; teacher recommendation; only level available to incoming 9th graders

Grades 9–12: (Grade 9 with strong teacher recommendation) **1 Credit**



This course increases the student's awareness of the living world. Major concepts such as cell structure and organization, metabolism, growth, reproduction, biochemistry, genetics, taxonomy, evolution, and ecology are emphasized. Laboratory experiments are used to teach conceptual themes.

Standard 4312
Academic/Advanced 4318
Honors 4316

CHEMISTRY I

Prerequisites: Teacher Recommendation; Algebra, Functions, and Data Analysis or Algebra II taken concurrently.

Advanced or Honors: Teacher recommendation, Algebra II taken concurrently

Grades 10–12 **1 Credit**



Students are introduced to basic chemical concepts including composition of matter, atomic structure, periodic table, chemical bonding, formulas and equations, reacting quantities, gas laws, and acid base theory. The investigative skills used by practicing scientists are emphasized.

Standard 4410
Advanced 4412
Honors 4414

PHYSICS I

Prerequisites: Standard: Teacher recommendation; Algebra, Functions, and Data Analysis or Algebra II taken concurrently

Advanced or Honors: Teacher recommendation; College Algebra and Trigonometry or higher, taken concurrently; and Chemistry recommended

Grades 10–12 **1 Credit**

This course focuses on the forces and energy relationships in the physical world. Topics include measurement, motion, work, gravity, molecular kinetic theory, waves, light, electricity, and circuitry. General principles are stated in mathematical terms and students are expected to use the principles to solve problems. The investigative skills used by practicing scientists are emphasized.

Standard 4510
Advanced 4512



Indicates Standards of Learning Test (SOL)



Students in science classes would benefit from having their own calculator. Calculators are required in chemistry and physics classes.



Interested in Science and Biology? You might be interested in the Health and Medical Sciences Academy (HMSA). See page 10 in the special programs section.



Interested in Geology, Ecology or Environmental Science? You might be interested in the Environmental Studies Academy (ESA). See page 12 in the special programs section.

GEOLOGY

Grades 9–12 1 Credit
Offered at AHS

Geology offers a foundation in the study of the geologic processes that have formed our world and the scientific skills used to observe and interpret it. In this laboratory course, students will learn to use and apply the vocabulary and technology of the geologist and earth scientist. The following topics will be covered: longitude and latitude, topographic maps, Earth's structure, plate tectonics, minerals, rocks, Virginia's geologic provinces, natural resources, weathering erosion, soils and natural resources, and comparative planetary geology.

Standard 4241
Academic/Advanced 4240

GEOLOGY–EARTH SCIENCE COOPERATIVE

Grades 9–12 2 Credits
Offered at AHS, MoHS

This course combines the curriculum of Geology and Earth Science. Through this course, students will have the opportunity to earn 2 science credits and a verified Earth Science credit. Students take the 2 courses separately.

ECOLOGY

Prerequisite: Biology
Grades 10–12 1 Credit

Ecology is a laboratory science from the biology discipline dealing with the interrelationships of living things and their environments. Major topics include energy flow, bio-geochemical cycles, biotic and abiotic influences on communities of living things, population dynamics, and an in-depth study of aquatic and terrestrial ecosystem pollution.

Successful completion of this course fulfills the graduation requirements for science courses.

Standard 4102
Advanced 4106

BIOLOGY–ECOLOGY COOPERATIVE

Grades 10–12 2 Credits
Offered at MoHS

This course combines the curriculum of Biology I and Ecology. Students will learn the concepts of Biology and Ecology using hands-on activities and labs. This course will provide students the opportunity to receive 2 science credits and an additional verified Biology credit. Students take the 2 courses separately.

PHYSICS 1

Advanced Placement

Prerequisite: Teacher recommendation; College Algebra and Trigonometry (or higher) taken concurrently; Chemistry recommended

Grades 10-12 1 Credit

This is the equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves and sound. It will also introduce electric circuits. Can be taken as a first-year physics course.

Students are expected to take an AP exam. The exam fee is approximately \$89 per test.

..... 4572

ENVIRONMENTAL SCIENCE, Advanced Placement

Prerequisite: Biology I, Algebra I, and teacher recommendation

Grades 10–12 1 Credit
Offered at AHS, MoHS

AP Environmental Science is offered to students who are interested in taking the AP Environmental Science exam for college credit. The AP content outline (available from College Board) is closely followed in this course. Topics covered in the course include: interrelationships with the natural world, global changes and their consequences, human population dynamics, renewable and nonrenewable resources, and environmental ethics.

Students are expected to take the AP exam. The exam fee is approximately \$89 per test.

Note: Most students need a “B or better” average in math and science courses to be successful in this course.

..... 4270

ANALYTICAL BIOLOGY INVESTIGATIONS

Prerequisite: Biology I, Chemistry, Algebra II;
Co-Requisite: AP Biology and teacher recommendation

Grade 10–12 1 Credit
Offered at WAHS

This course compliments the AP Biology program and serves as a co-requisite for that course. It supports the inquiry lab requirements for this course by providing students the opportunities to focus on the specialized laboratory investigations that are integral parts of the course. Students will gain practical experience in laboratory techniques to increase their ability to design and conduct scientific research. This course will provide instructional support to develop the critical thinking, problem solving, and communications skills required for success on the AP Biology exam.

..... 4322

BIOLOGY, Advanced Placement

Prerequisites: Biology I, Chemistry, Algebra II and teacher recommendation
Grades 11–12 **1 Credit**

Advanced Placement (AP) Biology is offered to students who are interested in taking the AP Biology exam for college credit. Since it is the equivalent of a college-level course, a great deal of reading and independent learning is required. The AP content outline and laboratory experiences are followed.

Students are expected to take the AP exam. The exam fee is approximately \$89 per test.

Note: Most students need a “B or better” average in math and science courses to be successful in this course.

..... 4340

ANIMAL STUDIES

Prerequisite: Biology I
Grades 11–12 **1 Credit**
Offered at MoHS, WAHS

This course is an introduction to the world of Zoology designed for 11th and 12th grade students. Students will survey the animal world from protists through chordates. Using a comparative approach, the study of each group will emphasize diversity, anatomy, evolutionary relationships, functional adaptations, and environmental relationships. Extensive lab work, including dissections, will be an integral part of the course.

Successful completion of this course fulfills the graduation requirements for science courses.

Academic. 4326

ANATOMY AND PHYSIOLOGY

Prerequisites: Teacher recommendation; Biology; strong laboratory skills
Grades 10–12 **1 Credit**
Offered at AHS, MoHS

Anatomy and Physiology is offered to students who are interested in furthering their understanding of how an organism’s tissues, organs, and systems function. Units to be covered include the brain and nervous system, respiration, the circulatory system, the actions of hormones, and mechanisms of disease. Topics are explored through discussion, numerous dissections and other laboratory experiments, and research.

Successful completion of this course fulfills the graduation requirements for science courses.

Fee: \$25

Academic. 4600
Honors. 4602

PHYSICS 2 Advanced Placement

Prerequisite: Teacher recommendation; Math Analysis, Physics I
Grades 9–12 **1 Credit**

This course is the equivalent to a second-semester college course in algebra-based physics. It covers fluid mechanics; thermodynamics; electricity and magnetism; optics; atomic and nuclear physics.

Students are expected to take an AP exam. The exam fee is approximately \$89 per test.

..... 4573

CHEMISTRY, Advanced Placement

Prerequisite: Teacher recommendation; Chemistry I and College Algebra and Trigonometry (or other higher math) taken concurrently
Grades 11–12 **1 Credit**

This course is the equivalent of a non-calculus-based college freshman course. Theory is developed in the first part, descriptive chemistry and applied chemistry are developed in the second part. Principles and concepts are developed as interpretations of well-known compounds. Laboratory work is an integral part of the study.

Students are expected to take the AP exam. The exam fee is approximately \$89 per test.

Note : Most students need a “B or better” average in math and science courses to be successful in this course.

..... 4440

ANALYTICAL CHEMISTRY INVESTIGATIONS

Prerequisite: Chemistry I, Honors or Advanced; **Co-Requirement:** AP Chemistry
Grades 11–12 **1 Credit**
Offered at AHS, WAHS

This course compliments the AP Chemistry program and serves as an optional co-requisite to AP Chemistry. It provides students with opportunities to focus on specialized laboratory investigations that are integral parts of the AP Chemistry course. Students will gain practical experience in laboratory techniques that will increase their ability to design and conduct scientific research. Furthermore, this course will provide instructional support to develop the critical thinking, problem solving, and communication skills required for success on the AP Chemistry exam.

..... 4422

HONORS ORGANIC CHEMISTRY

Prerequisite: Honors Chemistry I or teacher recommendation
Grades 10–12 **1 Credit**
Offered at WAHS

Organic Chemistry is a broad field, including diverse topics such as the synthesis and function of bio-molecules; the study of polymers; investigations into the synthesis and use of pharmaceuticals, soaps, flavors, and fragrances; and the study of petroleum products. This course fosters an understanding of the world around us, particularly compounds that contain the element carbon. The course is targeted toward college-bound students who wish to pursue a science-related degree.

..... 4471

ASTRONOMY

Prerequisite: College Algebra and Trigonometry recommended (may be taken concurrently); Advanced/Honors Physics recommended
Grades 10–12 **1 Credit (8 College Credits)**
Offered at WAHS, AHS

First Semester: Solar System Astronomy

The first semester topics include the history of astronomy from Aristotle to the present; types of telescopes; the scientific method in astronomy; and the formation of the solar system, planets, comets, asteroids, and meteors. Laboratories for the first semester include Kepler’s Law of Planetary Motion, Newton’s Law of Universal Gravitation, The Moons of Jupiter, Electromagnetic Spectrum, and others.

Second Semester: Stellar Astronomy and Cosmology

The second semester topics include solar astronomy, sunspots and sunspot cycles, spectroscopy and element abundance in stars, stellar classification and types of stars, distance indicators, binary stars, stellar evolution, white dwarfs, neutron stars, black holes, history of cosmology, the Big Bang Theory and the origin of the universe, cosmic microwave background, the expanding universe, and fate of the universe. Laboratories for the second semester include Hubble’s Law, Stellar Spectroscopy, Cepheid Variables, Orbits of Binary Stars, Hertzsprung-Russell Diagram, and others.

The student is responsible for purchasing the college textbook associated with this course.

..... 4651

Course Descriptions

“Language is the creature and creator of human society.”

-Michael Halliday



Why Study World Languages?

Languages are at the heart of what makes us human: expressing thoughts and ideas, making new friends, and learning about the world. We’ve always known that learning other languages helps us to meet new people and explore new places., and now science tells us that being multilingual also improves attention, creativity, problem solving, self-control, and organization. Multilingual students are better prepared to succeed in a global economy, connect across cultures, and be the problem-solvers our communities need to meet their greatest civic, social, and economic potential. As a result of their study in the world languages program students will

- Improve their communication skills across all languages;
- Enhance their cultural understanding of themselves and others;
- Expand their access to information; and
- Gain a global perspective.

World Languages

WORLD LANGUAGES—French

FRENCH I

Prerequisite: Teacher Recommendation
Grades 9-12 **1 Credit**

Students will learn to listen, speak, read, and write in the language through a study of cultures that use the language as part of their heritage. Students will learn basic vocabulary and essential grammar to communicate in simple sentences and navigate real-world experiences. Students will practice basic literacy and gain insight into the way of life of cultures associated with the language.

Fees apply for this course.

Note: Most students need a “C or better” average in English/Language Arts courses to be successful in this course.

.....5114

FRENCH II

Prerequisite: Teacher recommendation
Grades 9-12 **1 Credit**

This course continues to build on skills learned in the first year of the language. Students continue to work towards proficiency in all five-language skills: listening, reading, writing, studying culture, and a special emphasis on speaking.

Fees apply for this course.

Note: Most students need a “C or better” average in French I (Advanced) to be successful in this course.

.....5124

FRENCH III

Prerequisite: Teacher recommendation
Grades 9-12 **1 Credit**

Conducted almost entirely in the target language, this course refines speaking, reading, and writing skills as it emphasizes vocabulary building. There is also intense grammar work in preparation for the standardized tests that are encountered in the upper levels of the target language. Culture, geography, and history are included.

Fees apply for this course.

Note: Most students need a “C or better” average in French II (Advanced) to be successful in this course.

.....5134

FRENCH IV, HONORS

Prerequisite: Teacher recommendation
Grades 9-12 **1 Credit**

This class is conducted exclusively in the target language. As an honors course, it places great responsibility for progress on the student. Students are expected to engage in self-instruction, independent work, readings, projects, and research. Emphasis is on communication skills and competency in the language. Literature and culture are studied and grammar is reviewed. Students are prepared for the SAT II Test.

Fees apply for this course.

Note: Most students need a “B or better” average in French III (Advanced) to be successful in this course.

.....5140

FRENCH LANGUAGE & CULTURE Advanced Placement

Prerequisite: Teacher recommendation
Grade 12 **1 Credit**

The purpose of this class is to prepare students to take the Advanced Placement test for college credit. The emphasis is on listening to native speakers, reading literature intended for native speakers, writing compositions several paragraphs in length, and orally communicating facts and ideas. A thorough review of grammar is an integral part of this course.

Students are expected to take the AP exam. The exam fee is approximately \$87 per test.

Fees apply for this course.

Note: Most students need a “B or better” average in the French IV (Honors) to be successful in this course.

.....5170

SPANISH I

Prerequisite: Teacher Recommendation
Grades 9-12 1 Credit

Students will learn to listen, speak, read, and write in the language through a study of cultures that use the language as part of their heritage. Students will learn basic vocabulary and essential grammar to communicate in simple sentences and navigate real-world experiences. Students will practice basic literacy and gain insight into the way of life of cultures associated with the language.

Fees apply for this course.

Note: Most students need a “C or better” average in English/Language Arts courses to be successful in this course.

..... 5514

SPANISH II

Prerequisite: Teacher Recommendation
Grades 9-12 1 Credit

This course continues to build on skills learned in the first year of the language. Students continue to work towards proficiency in all five-language skills: listening, reading, writing, studying culture, and a special emphasis on speaking.

Fees apply for this course.

Note: Most students need a “C or better” average in Spanish I (Advanced) to be successful in this course.

..... 5525

SPANISH III

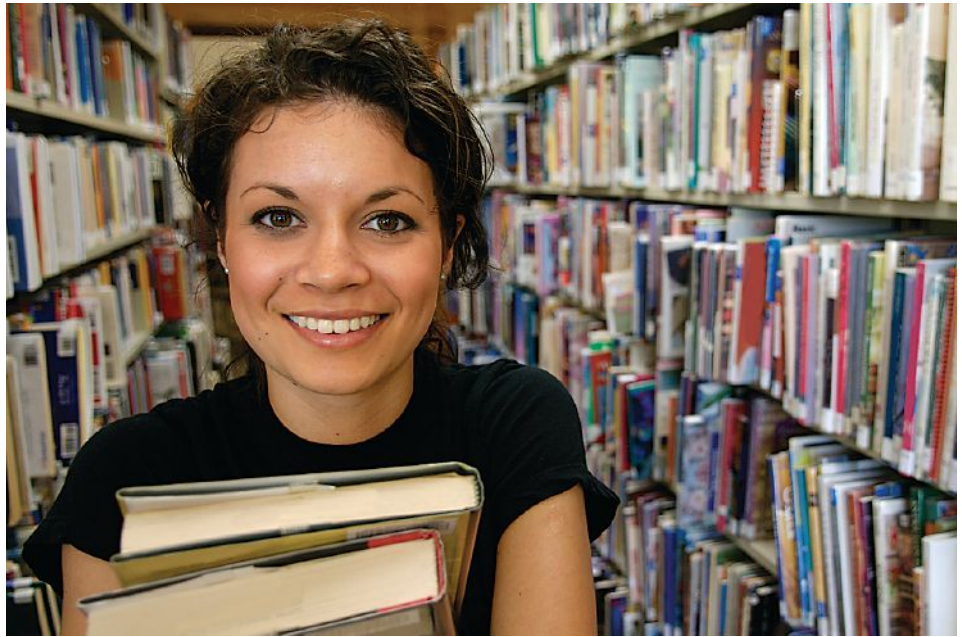
Prerequisite: Teacher Recommendation
Grades 9-12 1 Credit

Conducted almost entirely in the target language, this course refines speaking, reading, and writing skills as it emphasizes vocabulary building. There is also intense grammar work in preparation for the standardized tests that are encountered in the upper levels of the target language. Culture, geography, and history are included.

Fees apply for this course.

Note: Most students need a “C or better” average in Spanish II (Advanced) to be successful in this course.

..... 5531



SPANISH IV, HONORS

Prerequisite: Teacher Recommendation
Grades 9-12 1 Credit

This class is conducted exclusively in the target language. As an honors course, it places great responsibility for progress on the student. Students are expected to engage in self-instruction, independent work, readings, projects, and research. Emphasis is on communication skills and competency in the language. Literature and culture are studied and grammar is reviewed. Students are prepared for the SAT II Test.

Fees apply for this course.

Note: Most students need a “B or better” average in Spanish III (Advanced) to be successful in this course.

..... 5540

SPANISH LANGUAGE, Advanced Placement

Prerequisite: Teacher Recommendation
1 Credit

This class is to prepares students to take the Advanced Placement test for college credit. The emphasis is on listening to native speakers, reading literature intended for native speakers, writing compositions several paragraphs in length, and orally communicating facts and ideas. A thorough review of grammar is an integral part of this course.

Students are expected to take the AP exam. The exam fee is approximately \$87 per test

Note: Most students need a “B or better” average in Spanish IV (Honors) to be successful in this course.

..... 5570

SPANISH LITERATURE, Advanced Placement

Prerequisite: Teacher Recommendation
Offered at WAHS, AHS 1 Credit

This AP Spanish Literature course is comparable to a third-year college introduction to Hispanic literature course. The required reading list of literary significance represents various historical periods, literary movements, genres, geographic areas, and groups within the Spanish-speaking world. The course will help students to interpret and analyze literature in Spanish.

Students are expected to take the AP exam. The exam fee is approximately \$87 per test

Note: Most students need a “B or better” average in Spanish IV (Honors) to be successful in this course.

..... 5571

SPANISH FOR FLUENT SPEAKERS I

Prerequisite: Teacher recommendation
Offered at AHS 1 Credit

Emphasis will be placed on literacy in reading and writing. Students will learn the phonetic and verb systems and practice with level-appropriate texts and vocabulary lists as determined by diagnostic assessment.

..... 5518

GERMAN I

Prerequisite: Teacher recommendation
Grades 9-12 **1 Credit**

Students will learn to listen, speak, read, and write in the language through a study of cultures that use the language as part of their heritage. Students will learn basic vocabulary and essential grammar to communicate in simple sentences and navigate real-world experiences. Students will practice basic literacy and gain insight into the way of life of cultures associated with the language.

Fees apply for this course.

Note: Most students need a “C or better” average in English/Language Arts courses to be successful in this course.

..... **5210**

GERMAN II

Prerequisite: Teacher recommendation
Grades 9-12 **1 Credit**

This course continues to build on skills learned in the first year of the language. Students continue to work towards proficiency in all five-language skills: listening, reading, writing, studying culture, and a special emphasis on speaking.

Fees apply for this course.

Note: Most students need a “C or better” average in German I (Advanced) to be successful in this course.

..... **5220**

GERMAN III

Prerequisite: Teacher recommendation
Grades 10-12 **1 Credit**

Conducted entirely in the target language, this course refines speaking, reading, and writing skills as it emphasizes vocabulary building. There is also intense grammar work in preparation for the standardized tests that are encountered in the upper levels of the target language. Culture, geography, and history are included.

Fees apply for this course.

Note: Most students need a “C or better” average in German II (Advanced) to be successful in this course.

..... **5230**

GERMAN IV, HONORS

Prerequisite: Teacher recommendation
Grades 11-12 **1 Credit**

This class is conducted exclusively in the target language. As an honors course, it places great responsibility for progress on the student. Students are expected to engage in self-instruction, independent work, readings, projects, and research. Emphasis is on communication skills and competency in the language. Literature and culture are studied and grammar is reviewed.

Students are prepared for the SAT II Test. German IV has an AP option. The exam fee is approximately \$87 per test.

Fees apply for this course.

Note: Most students need a “B or better” average in German III (Advanced) to be successful in this course.

..... **5240**

**GERMAN LANGUAGE
 Advanced Placement**

Prerequisite: German IV;
 Teacher recommendation **1 Credit**

This class prepares students to take the Advanced Placement test for college credit. The emphasis is on listening to native speakers, reading literature intended for native speakers, writing compositions, and communicating orally. A thorough review of grammar is an integral part of this course.

Students are expected to take the AP exam. The exam fee is approximately \$87 per test.

Note: Most students need a “B or better” average in German IV (Honors) to be successful in this course.

..... **5250**



The ability to speak and understand other languages is an essential skill in today’s global business economy.

“If you can speak another language, you open a window to a beautiful world. Each culture has so many precious things that you don’t think about until you know that language.”

—Xuejun Du, ACPS parent and visiting scholar from China



Many World Language courses have a fee to cover the cost of the Workbooks.

WORLD LANGUAGES—Japanese

JAPANESE I

Prerequisite: Teacher Recommendation
Grades 9-12 **1 Credit**
Offered at AHS, WAHS

Students will learn to listen, speak, read, and write in the language through a study of cultures that use the language as part of their heritage. Students will learn basic vocabulary and essential grammar to communicate in simple sentences and navigate real-world experiences. Students will practice basic literacy and gain insight into the way of life of cultures associated with the language.

Fees apply for this course.

Note: Most students need a “C or better” average in English courses to be successful in this course.

..... 5910

JAPANESE II

Prerequisite: Teacher Recommendation
Grades 9-12 **1 Credit**
Offered at AHS, WAHS

Continued emphasis is given to speaking, listening to, reading, and writing the language, as well as to studying the national culture.

Fees apply for this course.

Note: Most students need a “C or better” average in Japanese I (Advanced) to be successful in this course.

..... 5920

JAPANESE III

Prerequisite: Teacher Recommendation
Grades 9-12 **1 Credit**
Offered at WAHS, AHS

Continued emphasis is given to speaking, listening to, reading, and writing the language as well as to studying the national culture.

Fees apply for this course.

Note : Most students need a “C or better” average in Japanese II (Advanced) to be successful in this course.

..... 5931

JAPANESE IV, HONORS

Prerequisite: Teacher Recommendation
Grades 9-12 **1 Credit**
Offered at WAHS, AHS

This course will provide a learning community to further improve student’s proficiency in Japanese reading and listening comprehension and writing and speaking skills. It especially focuses on speaking skills using various topics.

..... 5940

WORLD LANGUAGES—Chinese

CHINESE I, II, III

Prerequisite: Teacher Recommendation
Grades 9-12 **1 Credit**
Offered at MoHS

Strong emphasis is given to reading, writing, and speaking Mandarin Chinese. Teng Ssu Yu’s *Conversational Chinese* and teacher-prepared handouts are used during the course.

Fees apply for this course.

Note: Most students need a “C or better” average in English/ Language Arts courses to be successful in this course.

I..... 5810

II..... 5820

III..... 5830

WORLD LANGUAGES—Greek

ATTIC GREEK: LANGUAGE AND CULTURE

Prerequisite: None, but Latin or another world language is strongly recommended

Grades 9-12 **1 Credit**

Offered at AHS

This course will engage all learners in studies of Greek history, philosophy, mythology, art, and architecture emphasizing cross discipline connections to these subject areas. A quick-paced acquisition of reading skills and vocabulary (particularly scientific terminology) in Attic Greek is central to this course. Students will create and expand partnerships using interdisciplinary connections. This course is taught at an academic level and should be considered an elective rather than a language; however, there will be a heavy language component to the course.

..... 5605

LATIN I

Prerequisite: A good knowledge of English grammar
Grades 9-12 **1 Credit**

Through elementary readings and sentences, students learn how the Latin language operates and how English grammar and vocabulary stem from it. Students learn the inflections, rules of syntax, and vocabulary needed for the comprehension and translation of simple Latin stories. Other activities include English to Latin translation, both oral and written; word study (derivatives and formation of words); and discussion of Roman civilization and mythology.

Note: Most students need a “C or better” average in English/Language Arts courses to be successful in this course.
 5310

LATIN II

Prerequisite: Teacher Recommendation
Grades 9-12 **1 Credit**

In the first half of Latin II, students review Latin I (if needed). Stories about Roman life and customs are translated in the second half of Latin II. Emphasis on vocabulary and word study is continued and an understanding and appreciation of the history and civilization of Rome is gained through various readings.

Note: Most students need a “C or better” average in Latin I (Advanced) to be successful in this course.
 5320

LATIN III

Prerequisite: Teacher recommendation
Grades 9-12 **1 Credit**

Students will read selections from various texts including Pliny, Aulus Gellius, Apuleius and/or passages in Medieval Latin. Emphasis is placed on acquiring an understanding of Roman culture and an appreciation of Roman literature and on developing an increased English vocabulary through observing derivations. Studies in rhetoric and classical philosophy provide students with a valuable background for collegiate scholarship.

Note: Most students need a “B or better” average in Latin II (Advanced) to be successful in this course.
 5330

LATIN IV, HONORS

Prerequisite: Teacher Recommendation
Grades 9-12 **1 Credit**

This course provides an in-depth study of the poetry of Virgil, Ovid, Catullus, Horace, and/or Martial. Mythology, Roman history, poetic devices, and linguistic forms peculiar to poetry are studied.

This course may be offered in alternate years
Note: Most students need a “B or better” average in Latin III (Advanced) to be successful in this course.
 5340

VIRGIL, Advanced Placement

Prerequisite: Teacher recommendation: Latin IV
1 Credit **Offered at MoHS, WAHS**

The purpose of this class is to prepare students to take the Advanced Placement test for college credit.

Students are expected to take the AP exam. The exam fee is approximately \$87 per test.

Note: Most students need a “B or better” average in Latin IV (Honors) to be successful in this course.
 5371



Want to really stand out to college officials? Find a way to flaunt your world language skills.

General Information

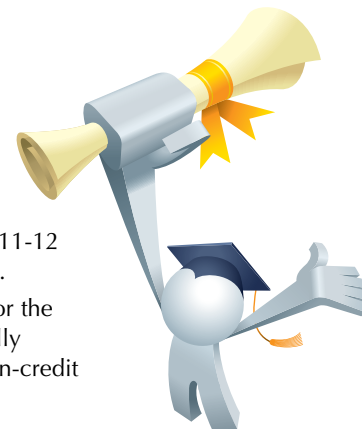
GRADUATION REQUIREMENTS

For students earning an Advanced Studies Diploma

To graduate with an Advanced Studies Diploma, a student must earn at least 24 or 26 standard units of credit, depending on when he or she entered ninth grade, and at least nine verified units of credit:

- Students who entered ninth grade for the first time during and after 2011-12 must earn at least 26 standard units of credit.
- Students who entered ninth grade before 2011-12 must earn at least 24 standard units of credit.

Beginning with students entering ninth grade for the first time in 2013-14, a student must successfully complete one virtual course, which may be non-credit bearing, to graduate with an Advanced Studies Diploma.



Your school counselor can tell you which courses are offered by your school to fulfill the requirements for an Advanced Studies Diploma.

Advanced Studies Diploma Course Requirements

Discipline Area	Standard Credits: effective with first-time ninth graders in 2003-04 through 2010-11	Standard Credits: effective with first-time ninth graders in 2011-2012 and beyond	Verified Credits: - effective with ninth graders in 2000-01 and beyond
English	4	4	2
Mathematics ¹	4	4	2
Laboratory Science ²	4	4	2
History & Social Sciences ³	4	4	2
Foreign Languages ⁴	3	3	
Health & Physical Education	2	2	
Fine Arts or Career & Technical Education	1	1	
Economics and Personal Finance		1	
Electives	2	3	
Student Selected Test ⁵			1
Total	24	26	9

Advanced Studies Diploma Notes

1 For students entering the ninth grade for the first time in 2003-2004 through 2010-2011: Courses completed to satisfy this requirement shall be at or above the level of algebra and shall include at least three different course selections from among: Algebra I, Geometry, Algebra II or other mathematics courses above the level of Algebra II. The Board may approve additional courses to satisfy this requirement.

For students entering the ninth grade for the first time in 2011-2012 and beyond: Courses completed to satisfy this requirement shall include at least three different course selections from among: Algebra I, Geometry, Algebra II or other mathematics courses above the level of Algebra II. The Board shall approve courses to satisfy this requirement.

2 For students entering the ninth grade for the first time in 2003-2004 through 2010-2011: Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. The Board may approve additional courses to satisfy this requirement.

For students entering the ninth grade for the first time in 2011-2012 and beyond: Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics. The Board shall approve courses to satisfy this requirement.

3 For students entering the ninth grade for the first time in 2003-2004 through 2010-2011: Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either world history or geography or both. The Board may approve additional courses to satisfy this requirement.

For students entering the ninth grade for the first time in 2011-2012 and beyond: Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either world history or geography or both. The Board shall approve courses to satisfy this requirement.

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

5 For students entering the ninth grade for the first time in 2003-2004 through 2010-2011: A student may utilize additional tests for earning verified credit in computer science, technology, career or technical education or other areas as prescribed by the Board in 8 VAC 20-131-110.

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



Graduation requirements have changed for students entering the 9th grade during the 2011-12 school year. These students are now required to have 26 standard credits to receive an Advanced Studies Diploma.



GRADUATION REQUIREMENTS

For students earning a Standard Diploma

To graduate with a Standard Diploma, a student must earn at least 22 standard units of credit by passing required courses and electives, and earn at least six verified credits by passing end-of-course SOL tests or other assessments approved by the Board of Education.

Beginning with students entering ninth grade for the first time in 2013-14, a student must also:

- Earn a board-approved career and technical education credential to graduate with a Standard Diploma; and
- Successfully complete one virtual course, which may be non-credit bearing.

The school counselor can advise on available courses to fulfill the requirements for a Standard Diploma.

Standard Diploma Course Requirements

Discipline Area	Standard Credits: effective with first-time ninth graders in 2003-04 through 2010-11	Standard Credits: effective with first-time ninth graders in 2011-12 and beyond	Verified Credits: effective for first-time ninth graders in 2003-04 and beyond
English	4	4	2
Mathematics ¹	3	3	1
Laboratory Science ^{2&6}	3	3	1
History & Social Sciences ^{3&6}	3	3	1
Health & Physical Education	2	2	
Fine Arts or Career & Technical Education	1		
Foreign Language, Fine Arts or Career & Technical Education ⁷		2	
Economics and Personal Finance		1	
Electives ⁴	6	4	
Student Selected Test ⁵			1
Total	22	22	6

Standard Diploma Notes

1 For students entering the ninth grade for the first time in 2003-04 through 2010-11: Courses completed to satisfy this requirement shall be at or above the level of algebra and shall include at least two course selections from among: Algebra I, Geometry, Algebra II or other mathematics courses above the level of algebra and geometry. The Board may approve additional courses to satisfy this requirement.

For students entering the ninth grade for the first time in 2011-12 and beyond: Courses completed to satisfy this requirement shall include at least two different course selections from among: Algebra I; Geometry; Algebra, Functions and Data Analysis; Algebra II or other mathematics courses above the level of Algebra II. The Board shall approve courses to satisfy this requirement.

2 For students entering the ninth grade for the first time in 2003-04 through 2010-11: Courses completed to satisfy this requirement shall include course selections from at least two different science disciplines: earth sciences, biology, chemistry or physics. The Board may approve additional courses to satisfy this requirement.

For students entering the ninth grade for the first time in 2011-2012 and beyond: Courses completed to satisfy this requirement shall include course selections from at least two different science disciplines: earth sciences, biology, chemistry or physics. The Board shall approve courses to satisfy this requirement.

3 For students entering the ninth grade for the first time in 2003-2004 through 2010-2011: Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either world history or geography or both. The Board may approve additional courses to satisfy this requirement.

For students entering the ninth grade for the first time in 2011-12 and beyond: Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either world history or geography or both. The Board shall approve courses to satisfy this requirement.

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

5 For students entering the ninth grade for the first time in 2003-04 through 2010-11: A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education or other areas as prescribed by the Board in 8 VAC 20-131-110.

For students entering the ninth grade for the first time in 2011-12 and beyond: A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics or other areas as prescribed by the Board in 8 VAC 20-131-110.

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

7 For students entering the ninth grade for the first time in 2011-12 and beyond: Pursuant to Section 22.1-253.13:4, Code of Virginia, credits earned for this requirement shall include one credit in fine or performing arts or career and technical education.



Graduation requirements have changed for all students entering the 9th grade during the 2011-12 school year. These students must earn an Economics and Personal Finance course credit.



GRADUATION REQUIREMENTS

For students earning a Modified Standard Diploma

MODIFIED STANDARD DIPLOMA

The Modified Standard Diploma is intended for certain students at the secondary level who have a disability and are unlikely to meet the credit requirements for a Standard Diploma. Eligibility and participation in the program are determined by the student's IEP

team and the student, when appropriate. Decisions of eligibility and participation may be made at any point after the student's eighth grade year. Written consent from parent/guardian must be obtained for a student to choose this diploma program.

The student must:

- be allowed to pursue a Standard or Advanced Studies Diploma at any time throughout his or her high school career;
- not be excluded from courses and tests required to earn a Standard or Advanced Studies Diploma; and
- pass literacy and numeracy competency assessments as prescribed by the Board:

—For students who entered the ninth grade prior to 2000-01, the literacy and numeracy competency assessments were the reading and mathematics subtests of the LPT.

- For students who entered the ninth grade in 2000-01 and beyond, the literacy and numeracy competency assessments are the eighth-grade English Reading test and the eighth-grade Mathematics SOL test (Board action – November 30, 2000).
- The Board also approved four additional substitute assessments to satisfy the literacy and numeracy requirements for students pursuing a Modified Standard Diploma.

- Substitute Numeracy and Literacy Tests for the Modified Standard Diploma

Students receiving a Modified Standard Diploma are now eligible for the Board's Excellence in Civics Education Seal.

NOTE: The Modified Standard Diploma will not be an option for students with disabilities who enter the ninth grade for the first time after 2012-13. Beginning with students entering ninth grade for the first time in 2013-14, credit accommodations will be provided to allow students with disabilities who previously would have pursued a Modified Standard Diploma to earn a Standard Diploma. Guidelines for credit accommodations will be issued by the Board of Education.

Modified Standard Diploma Course Requirements

Discipline Area	Standard Credits
English	4
Mathematics ¹	3
Laboratory Science ²	2
History & Social Sciences ³	2
Health & Physical Education	2
Fine Arts or Career & Technical Education	1
Electives ⁴	6
Total	20

Notes for Modified Standard Diploma

- 1 Courses completed to satisfy this requirement shall include content from among applications of algebra, geometry, personal finance and statistics in courses that have been approved by the Board.
- 2 Courses complete shall include content from at least two of the following: applications of earth science, biology, chemistry, or physics in courses approved by the Board.

- 3 Courses completed to satisfy this requirement shall include one unit of credit in U.S. and Virginia History and one unit of credit in U.S. and Virginia Government in courses approved by the Board.
- 4 Courses to satisfy this requirement shall include a least two sequential electives in the same manner required for the Standard Diploma.



INDIVIDUALIZED STUDENT ALTERNATIVE EDUCATION PROGRAM (ISAEP)

An ISAEP provides students at-risk of dropping out of school an educational experience that can prepare them for continued learning, successful employment, and responsible citizenship. A referral to ISAEP may be made by the student's base school when a student demonstrates substantial need for an alternative program. The ISAEP recognizes that standard educational schedules and methods are not successful for all students. An ISAEP offers the opportunity of successful closure to one's high school experience and opens the possibility for continuing education.

In order to be considered for an ISAEP, students must:

- be currently enrolled in an Albemarle County High School;
- be at least 16 and 1 year (6 or more credits) behind their entering class in credits earned;
- achieve minimum entry test scores (a minimum of 410) on each of the 5 sections of the General Educational Development (GED) Practice Test and a minimum score of 7.5 on the Tests of Adult Basic Education (TABE) Reading Test;
- complete a visit to the program;
- meet with their parent/guardian, school counselor, and ISAEP Coordinator prior to enrollment in ISAEP; and
- complete a career-aptitude assessment.

Each ISAEP has three components:

- (1) academic preparation for the GED exam;
 - (2) career guidance and exploration (demonstrate proficiency in Virginia's Workplace Readiness Skills—13); and
 - (3) occupational experience and/or training.
- (4) Econ PPF Credit

The program is located on the campus of Murray High School. Students who pursue an ISAEP follow a class and career/technical schedule based on their individual situation. See your school counselor for more information.



The Individualized Student Alternative Education Program (ISAEP) is located on the campus of Murray High School. See page 14-15 for more information about Murray High School

SEQUENTIAL ELECTIVES

Students qualifying for a Standard Diploma or a Modified Standard Diploma must successfully complete two sequential electives for 2 full credits chosen from a concentration of courses that provide a foundation for further education, training, or preparation for employment. A course may satisfy the requirement for 1 credit in a fine art or career and technical education course and for sequential electives.

SPECIAL DIPLOMA

A special diploma (called IEP or Individualized Education Program Diploma) is awarded to identified students with disabilities who require special education services and have completed the requirements of the Individualized Educational Program.

CERTIFICATE OF PROGRAM COMPLETION

In accordance with the requirements of the Standards of Quality, students who complete coursework defined by the local school board but have not earned the required verified credits for diplomas are awarded Certificates of Program Completion.



Want to earn a degree or certificate from PVCC and your high school diploma at the same time? See your counselor for details.

DIPLOMA SEALS

Students who demonstrate academic excellence and/or outstanding achievement may be eligible for one (or more) of the following awards.

Governor's Seal for Advanced Studies Diploma

To receive the Governor's Seal on an advanced studies diploma, students must complete the following:

- All requirements for an Advanced Studies Diploma with an average grade of "B" (3.0 unweighted GPA) or better and
- College-level coursework that will earn the student at least 9 transferable college credits in Advanced Placement (AP), International Baccalaureate (IB), Cambridge, or dual enrollment courses.

Virginia Board of Education Seal

Students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an average grade of "A" (3.5 unweighted GPA) shall receive a Board of Education Seal on the diploma.

Career and Technical Education—Virginia Board of Education's Seal

The Board of Education's Seal for Career and Technical Education is awarded to students who meet the following:

- Requirements for a Standard or Advanced Studies Diploma;
- A prescribed sequence of courses in a career and technical education concentration or specialization; and
- Maintain a "B" (3.0 unweighted GPA) or better average in those courses or pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade, or professional association or acquire a professional license in that career and technical education field from the Commonwealth of Virginia.

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

Advanced Mathematics and Technology—

Virginia Board of Education's Seal

The Board of Education's Seal of Advanced Mathematics and Technology is awarded to students who meet the following:

- Requirements for either a Standard or Advanced Studies Diploma;
- Mathematics requirements for the Advanced Studies Diploma (four units of credit including Algebra II; two verified units of credit) with a "B" average (3.0 unweighted GPA) or better; and
- Pass an examination in a career and technical education field that confers certification from a recognized industry or trade or professional association, acquire professional license in a career and technical education field from the Commonwealth of Virginia, or pass an examination approved by the Board that confers college-level credit in a technology or computer science area.

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

Excellence in Civics Education—Virginia Board of Education's Seal

The Board of Education's Seal for Excellence in Civics Education is awarded to students who meet the following:

- Requirements for either a Standard or Advanced Studies Diploma;
- Virginia and United States History and Virginia and United States Government courses with a grade of "B" (3.0 unweighted GPA) or better;
- Good attendance and no disciplinary infractions as determined by local school board policies; and
- 50 hours of voluntary participation in community service or extracurricular activities.*

* Activities that would satisfy these requirements include: (a) volunteering for a charitable or religious organization that provides services to the poor, sick, or less fortunate; (b) participating in Boy Scouts, Girl Scouts, or similar youth organizations; (c) participating in political campaigns or government internships, or Boys State, Girls State, or Model General Assembly; or (d) participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation will be deemed to have met this community service requirement.

ENRICHING YOUR HIGH SCHOOL EXPERIENCE

To encourage students to enrich their high school educational experience and to increase the rigor of the high school program, the following choices are available:

The Advanced Placement (AP) program, offered by the College Board, enables students to pursue college-level studies while still in high school. AP offers students the opportunity to participate in a rigorous curriculum that exposes students to high academic intensity and quality. Based on their performance on AP Examinations, students may earn college credit. Advanced Placement courses are offered in these areas: English, mathematics, science, history, government, psychology, art history, art portfolio, and world languages. Based on the amount of work required outside of the classroom, students who want to enroll in more than three Honors and/or AP level classes per semester should carefully consider their academic, personal, and extracurricular activities. For more information, students should consult with their school counselor. Students are expected to take the AP exam. The exam fee is approximately \$89 per test. Financial assistance is available for economically disadvantaged students. See a school counselor for more information.



Dual Enrollment offers the student credit through Piedmont Virginia Community College (PVCC), as well as high school credit, for courses offered during the regular school day at the high school. The student must complete the necessary entrance requirements for PVCC and have principal approval. Course offerings vary from year-to-year. See your school counselor for more information. Dual Enrollment/Credit courses taken in the core areas (English, history/social sciences, science and mathematics) are weighted as college/dual enrollment courses. Students taking Dual Enrollment courses follow the college add/drop policy and deadlines.



Dual Credit may be earned for courses taken on the college campus. Credit appears on both the high school and college transcript. Students who pursue this option do so in order to add an enriching and rigorous course to their high school program of study that is not available at the high school. Students must obtain permission from the school principal/designee, prior to enrollment, to ensure appropriate high school credit for the college course. The student is responsible for the expenses associated with any course.

Senior/Junior Internship Program is designed to support long-range education and career goals. It is strongly recommended that all students consider an internship as part of their high school plan of study. This program provides the opportunity to experience “first-hand” a particular career or career field by interning with professionals in the community. Students who participate in an internship will earn 1 credit. See your school counselor for additional details.

Governor’s Senior Year Plus: Early College Scholars Agreement is intended to allow and to encourage eligible high school seniors to complete requirements for a high school diploma and concurrently earn at least 15 hours of transferable credits toward a college degree. This results in a more productive senior year and reduces the amount of college tuition for families. See your school counselor for more information.

Virtual Virginia School is a regular high school facilitated by the Virginia Department of Education. This virtual school offers a variety of Advanced Placement courses and non-AP courses, enabling students to earn college credit (through AP exams), regardless of their high school’s ability to offer college-level courses. Courses are available through satellite and Internet video streaming or online. There is a tuition charge for some courses. If a student drops a Virtual Virginia Course, there is a \$75 fee. Courses pursued through this method are those courses that are not offered at the high school. Information on specific course offerings can be found at www.virtualvirginia.org.

Distance Learning/Online Courses may also be taken to enrich and add rigor to the high school program. Students must obtain permission from the principal/designee prior to enrolling in a correspondence or online course to ensure the proper awarding of credit. All tests are administered under the supervision of the base high school. The student is responsible for all expenses associated with any course.

VERIFIED CREDITS

- Verified credits are earned by passing both the course and the end of course Standards of Learning test.
- The Board of Education has approved substitute tests for verified credit. See your school counselor for more information about these tests.
- Students who have not been successful on the Standards of Learning tests are offered remediation opportunities and/or tutorial programs in preparation for the Standards of Learning tests.

Locally Verified Credits for Standard Diploma Only

The Virginia Department of Education has adopted a policy that allows local school divisions to award locally verified credits in science and history/social science to students pursuing a Standard Diploma. To be eligible a student must have passed the high school course and not passed the related Standards of Learning test. Students must have taken the SOL test two times scoring within 375-399 on one administration of the test. Locally verified credits cannot be applied to an advanced diploma.

Students transferring into Albemarle County Schools

Students transferring into Albemarle County Public Schools from a home-school or private school environment who wish to receive Carnegie unit credit for courses taken shall be awarded credit if one of the following conditions is met:

- Courses taken through an accredited correspondence/on-line high school program that generates a student transcript that records the grade and credit for the course.

Number of Verified Credits Required for Transfer Students

Discipline	Entering* during 9th or at the beginning** of 10th grade		Entering* during 10th or at the beginning** of 11th grade		Entering* during 11th or at the beginning** of 12th grade	
	STD	ADV	STD	ADV	STD	ADV
English	2	2	1	2	1	1
Math	1	2	1	1		
Science	1	2	***1	1		
Social Studies	1	2	***1	1		
Student Choice	1	1		1	1	3
Total	6	9	4	6	2	4

STD: Standard ADV: Advanced

* "During" the school year– enters on or after the 27th school day.

** "Beginning" – before the 27th school day.

*** Students who complete a CTE program sequence and pass an exam or occupational competency assessment may substitute the certification, competency credential, or license for (1) the student selected verified credit and (2) either a science or history/social science verified credit when the credential confers more than one verified credit.

- A student portfolio that supports sufficient mastery of the content of a course for which credit sought must be submitted to the Director of Secondary Education for review.
- The student will further be required to pass the SOL Exam if one is associated with the course.
- The student may additionally be required to pass a comprehensive exam for any course for which credit is sought. Credit granted on this basis will be recorded as "Pass" on the student transcript.

CORE COURSES / LEVELS

Levels have been identified for courses in English, mathematics, science, social studies, and world languages. Elective courses are not leveled but may require prerequisites. Teachers make recommendations for both course selection and placement based on student interest and performance. Students are urged to read course descriptions carefully and select the level that best suits their abilities and needs and challenges them in each subject area. The decision should be reached through consultation with parents, school counselors, and teachers. Competitive colleges expect student transcripts to show enrollment in advanced offerings in each content area. The Albemarle County curricula are designed to allow students to complete the Standards of Learning as defined by the State of Virginia.

Levels in Courses

1. The Division offers the following levels of core courses (in addition to AP and dual enrollment): Standard, Academic, Advanced, and Honors. Individual high schools will use school improvement planning to determine course levels that may be effectively combined to increase opportunities for students to participate in higher course levels. Currently, the Academic level represents a combined level typically serving students enrolled in Standard and Advanced level courses.

The Standard level is offered as a college preparatory/school-to-work program. This level provides a broad base of knowledge and emphasizes realistic application of concepts.

The Academic/Advanced level is offered as a college preparatory/ school-to-work program. Students in Academic/Advanced classes are engaged in a rigorous curriculum designed to stimulate and encourage academic growth and performance.

The Honors level is designed for students demonstrating exceptional aptitude and achievement in the discipline and a desire to pursue the curriculum beyond the Academic/Advanced level of study. Honors students are expected to be self-motivated, independent learners able to engage in self-instruction through independent reading, projects, and research.

2. This level structure is intended to provide schools, through the school improvement process, the flexibility to combine levels of classes. The Academic level combines Advanced and Standard levels. Other options might be pursued through the school improvement process with the goal of ensuring opportunity and access to high-level curriculum and instruction for all students.
3. Elective courses will remain unlevleled.

STUDENT COURSE LOAD

All students through grade 12 shall maintain a full-day schedule of classes unless:

- A waiver is granted by the Superintendent/Designee;
- A recommendation of the principal and acceptance by a college or university has qualified a student to be released during school hours to take college or university courses. Tuition and transportation for these courses are the responsibility of the student; or
- Students are taking college courses for dual credit according to the Virginia accreditation standards.

PROMOTION TO GRADE LEVELS

A student's class standing in grades 9, 10, 11, and 12 is determined by the number of credits he/she has earned. (The credits assigned are included with each course description.)

Grade classifications for students are as follows:

Grade 10: 6 credits

Grade 11: 12 credits

Grade 12: minimum of 15 credits and enrolled in all required classes for graduation.

Note: According to Virginia State Law, students must attend school until their eighteenth (18th) birthday. However, students, who have not reached twenty years of age on or before August 1st of the school year, have the right to a free public education. If English is a second language for the student, then the student may remain in school through the age of 21.

GRADING SCALE

The Division's grading scale is:

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

GRADE POINT AVERAGE, WEIGHTED GRADES, AND RANK IN CLASS

Grade Point Average (GPA)

GPA is determined by dividing the total grade points received by the total number of credits attempted. Students ranked in the top 10% of the school's graduating class, on the basis of the un-weighted and weighted GPA, are recognized as "honor graduates."

Weighted Grades

GPA will be calculated by dividing the total grade points received by the total number of credits attempted. As part of the school profile, each high school will report class size and the highest and lowest GPA in the class. Class rank will only be reported for special circumstances: military academies, honors programs, scholarship opportunities and to recognize honor graduates at the end of the senior year.

Grade	Standard/ Academic/ Advanced	Honors / AP Dual Credit/ Dual Enrollment
A	4	5
B	3	4
C	2	3
D	1	2
F	0	0

EARLY HIGH SCHOOL PROGRAM COMPLETION

A student planning to satisfy all graduation requirements established by the Commonwealth of Virginia and Albemarle County Public Schools prior to his or her cohort's graduation date may petition the school principal for early graduation. The student must write a plan in collaboration with school counseling staff and his or her parent or guardian including courses and other requirements to be fulfilled. The plan must also outline the student's reason for requesting early graduation. Reasons may range from hardships to plans for early college attendance. A request for early graduation will be approved at the discretion of the school principal. Students wishing to graduate in a time period of less than four years must be able to show that they can meet their graduation requirements. In addition, students must show that they have a sustainable post graduation plan. Students whose plans are approved will remain enrolled at the school through their graduation date unless special circumstances are determined by the principal.

REGULATIONS GOVERNING THE SECONDARY SCHOOL TRANSCRIPT

On March 29, 2007, the Virginia Board of Education adopted amended regulations governing the Secondary School Transcript. These revisions were made in order to strengthen the transcript regulations and to bring them into conformity with amended or new state and federal laws as well as the needs of higher education. The secondary school transcript regulations became effective for students taking secondary courses for credit beginning in the 2008-2009 school year.

When parents request a transcript from the high school, the student's "test record" is required by law to be on it as described here from the regulations.

Test record, to include at least the highest score earned, if available, on college performance-related standardized tests such as SAT and ACT, excluding Standards of Learning (SOL) test scores.

COURSE AND ATTENDANCE PROCEDURES

Add/Drop Procedures

Course selection for the upcoming year is an opportunity for each student to think carefully about interests, achievement, and educational and career goals. Give very serious consideration to this registration process. Research indicates that college success is strongly related to the level of difficulty of high school courses.

Teacher recommendations for course selection and placement are based on students' interests, ability, and performance. School counselors use these recommendations to assist each student in planning a program of study and selecting of courses for the next school year.

The Recommendation/Registration Forms are brought home for parental review and signature and returned to the school counselor within three days of the planning conference. After the submission of the registration form, all requests for schedule changes must be made prior to the end of the current school year.

It may not be possible to accommodate requests for changes.

Credits cannot be earned for courses entered after ten (10) school days have passed for year-long classes, and five (5) school days have passed for semester classes.

Other considerations:

- Due to budget and staffing guidelines, course selections are finalized by the end of the preceding school year.
- Selected courses may be offered during zero period, which meets before school. Students who register for these courses must provide their own transportation.
- A course is offered only if enough student requests support that course.
- Many courses list prerequisites for enrollment.
- **Electives:** alternate choices are made, as the school reserves the right to assign students the alternate choice if necessary or if scheduling conflicts occur.
- **Corrections** to student schedules must take place on or before the 5th day of the semester for semester-long courses and on or before the 10th day for year-long courses, to a prevent penalty or notation on the student's transcript.

- **Added Classes:** Classes may only be added under extenuating circumstances and must take place on or before the 5th day of the semester for semester-long courses and on or before the 10th day for year-long courses.
- **Dropped Classes:** Classes dropped after the 5th day of the semester for semester-long courses and after the 10th day for year-long courses but before the 2nd week after the 1st interim period will have a "W" (withdraw) noted on the transcript. The "W" is not factored into the GPA. Permission of the Principal is required.
- Under extenuating circumstances, exceptions may be considered by the Principal for a class to be dropped after the above dates. A withdrawn failure (WF) is recorded on the student's transcript. The withdrawn failure (WF) is included in the GPA calculation.
- An appeal of this policy may be considered by the Principal for the student to receive a Withdrawn (W) on their transcript and not have the course included in the GPA calculation.
- Dual Enrollment/College courses follow the college add/drop policy and deadlines.

Repeating a Course

All courses taken and grades earned are recorded on the transcript, including courses retaken. However, only the highest grade is calculated in the GPA.

Loss of Credit

Loss of credit occurs when the student fails to meet attendance requirements. Each time loss of credit occurs, the student, parent/guardian, and teacher is informed in writing. No Credit (NC) appears where the grade is listed. The grade is not included in the calculation of the GPA.

Translation of Pass/Fail Grades

Students receiving a "Pass" in a course designated as pass/fail are credited with completion of the course, but the grade from such a course is not included in the calculation of the GPA. Students receiving a "Fail" in a pass/fail course receive a grade point of 0, which is included in calculations of the GPA.

Transcript Evaluation of Foreign Study Grades

Transcripts of foreign study for students transferring for the first time require evaluation to determine standard units of credit that may count toward graduation. In order for foreign records to be considered official, they must be received sealed by the Albemarle County Public Schools, International, and ESOL Office from the foreign school. Documentation must include:

- courses;
- grades and a grading scale; and
- the number of minutes in a class, the number of times each class meets weekly, and the number of weeks in a school year.

Evaluation must be completed and standard units of credits awarded within the first semester of enrolling in an Albemarle County school. The responsibility for obtaining clarification from the foreign site rests with the parents and students.

Attendance

School attendance is critical to academic achievement and preparing students for the world of work and personal success. Each parent or guardian having charge of a child within the compulsory attendance age is responsible for the child's regular and punctual attendance at school as required under provisions of state law.

Class Absences

Absences are recorded by individual classes, not by school day. The principal has the discretion to deny credit for the course to a student who missed more than 8 instructional blocks of a 1-credit course (1/2 of the course). A note that includes the date(s) of absence(s) and reason for absence should be sent to the school upon the student's return. All notes are retained for the use of the Attendance Committee. Should an appeal be necessary, students must submit an attendance appeal to the Appeals Committee beginning with the first absence over the limit.

Pre-Arranged Absences

Requests for extended absence because of travel, college visits, etc., should be submitted in writing prior to the absence. The dates to be missed and the nature of the absence should be included in the requests. Vacations and appointments should be scheduled outside of class time whenever possible. Pre-arranged absences do count toward absences for attendance.

School-Related Absences

Absences that result from school-related activities do not count toward absences for attendance. These include but are not limited to the following: field trips, homebound instruction, sport activities, guidance or group meetings, late bus.

A school-related absence includes participation in a regional, state, and/or national competition in an activity that is not offered by the school. The activity fosters the development of the student's physical, academic, performing, or exhibition art talents, which is the culmination of a year's participation, and the student's participation reflects favorably on the school and the community.

Out-of-School Suspension

After the third calendar day of absences resulting from out-of-school suspension, days of subsequent suspension count against the limit of absences for earning credit. The Attendance Committee gives special attention to these absences and may withhold a final decision on loss of credit until the end of the semester or the current school year, as appropriate. During this time, the student's behavior is monitored to assess progress.

Early Dismissal

If a class is missed due to early dismissal, it is considered an absence. As noted previously, absences are recorded by individual classes not by school day. Three early dismissals equals an absence in the applicable class(es).

Tardy to Class

An absence is assigned each time a student is tardy to class three times during a semester. These absences do count toward absences for attendance and possible denial of credit.



Make-up Work

Students who have been absent or are suspended are responsible for the work missed. See student handbook for details.

Appeals Process

Loss of credit may be appealed to the School Attendance Committee. The principal makes decisions regarding loss of credit. Any decision to deny credit or promotion may be appealed to the Superintendent or her designee for final disposition.

Exams

Exams are a valuable cumulative learning experience for all students. Exams are designed to cover the objectives of the curriculum; the actual design of the exam is the instructor's professional decision. Exams are scheduled each semester. All year-long courses have exams at mid-term and at the end of the year. Exams count 20% of the grade.

Exam Exemptions

As an incentive for students to attend school regularly and consistently perform well, exam exemptions can be earned by students who meet the following criteria for grades, attendance, and behavior during the final semester of the course.

- **Grades**—The student must have a grade of 90 or higher in the class.
- **Behavior**—No student is eligible for exemptions who has had an in-school or out-of-school suspension.

SUBSTITUTION OF SOL TEST RESULTS FOR THE SEMESTER EXAM

Final exams continue to count 20% of the final semester grade.

Standard, Academic, Advanced Level Courses

Schools have the option of allowing students enrolled in Standard, Academic, Advanced level courses to substitute an SOL end-of-course exam for the final exam. This should be a team/department level decision. If this option is chosen by a school team/department, a 4th nine weeks cumulative performance task shall be developed to engage students during the 4th nine weeks in assessments that will demonstrate learning through research papers, investigative labs, presentations, or performance task.

If this option is utilized at the school level, students enrolled in Honors/AP, dual enrollment courses, and those courses without SOL tests, still will be able to exempt final exams under an exam exemption procedure through which students have a 90 semester average in the course prior to the exam and meet the behavioral criteria. Students who do not meet the exemption criterion will be required to take a final exam.

Honors/AP

High school staff will use the school improvement process to determine second semester exam practices and will communicate exam expectations and procedures to students and parents at the beginning of the second semester.

ATHLETIC ELIGIBILITY

Virginia High School League Eligibility

To be eligible for participation on athletic teams, the Virginia High School League (VHSL) requires that students be enrolled in five (5) credits (in progress) and have passed five (5) classes (earned credits for 5 classes) the previous semester. Repeating a course for which a passing grade was received does not count toward the required five courses for athletic eligibility.

First semester 9th graders are eligible on the basis of their promotion from the 8th grade the previous semester. See Athletic Handbook for details.

- Any course in which a student receives a full credit during one semester may be doubled and counted as such for eligibility purposes.
- Any course taken every day or every other day (for an extended block i.e. an A-B block) for the entire year counts as a stand alone course for one credit.
- Any semester course taken for partial credit counts as one course.

- 3 credit courses at CATEC count as three classes for VHSL Eligibility.
- In the case of hybrid schedules one must count the courses based upon what is outlined above. Here are some scenarios:
 1. Straight 4 x 4 (four courses taken each semester—each for one credit)
These are double and as such a student must pass a minimum of three each semester to be eligible
 2. 4x4 plus year long courses or semester courses:
Student is taking three 4 x 4 courses and 3 year long or semester courses. If the student fails one of the 4 x 4 courses (equivalent of four courses), he/she must pass at least one year long courses to attain the required “pass five” standard. If a student fails two of the 4 x 4 courses (equivalent of two courses), he/she must pass all three of the year long courses to attain 5 courses passed for credit.



NCAA Initial-Eligibility Requirements

Divisions I and II

Core Courses

- NCAA Division I requires 16 core courses. NCAA Division II currently requires 14 core courses. Division II will require 16 core courses for students enrolling on or after August 1, 2013. See the charts below.
- NCAA Division I will require 10 core courses to be completed prior to the seventh semester (seven of the 10 must be a combination of English, math or natural or physical science that meet the distribution requirements below). These 10 courses become "locked in" at the seventh semester and cannot be retaken for grade improvement.
- Beginning August 1, 2016, it will be possible for a Division I college-bound student-athlete to still receive athletics aid and the ability to practice with the team if he or she fails to meet the 10 course requirement, but would not be able to compete.

Test Scores

- Division I uses a sliding scale to match test scores and core grade-point averages (GPA).
- Division II requires a minimum SAT score of 820 or an ACT sum score of 68.
- The SAT score used for NCAA purposes includes only the critical reading and math sections. The writing section of the SAT is not used.
- The ACT score used for NCAA purposes is a sum of the following four sections: English, mathematics, reading and science.
- When you register for the SAT or ACT, use the NCAA Eligibility Center code of 9999 to ensure all SAT and ACT scores are reported directly to the NCAA Eligibility Center from the testing agency. Test scores that appear on transcripts will not be used.

Grade-Point Average

- Be sure to look at your high school's List of NCAA Courses on the NCAA Eligibility Center's website (www.eligibilitycenter.org). Only courses that appear on your school's List of NCAA Courses will be used in the calculation of the core GPA. Use the list as a guide.
- Division I students enrolling full time before August 1, 2016, should use Sliding Scale A to determine eligibility to receive athletics aid, practice and competition during the first year.
- Division I GPA required to receive athletics aid and practice on or after August 1, 2016, is 2.000.
- Division I GPA required to be eligible for competition on or after August 1, 2016, is 2.300 .
- The Division II core GPA requirement is a minimum of 2.000.
- Remember, the NCAA GPA is calculated using NCAA core courses only.

DIVISION I—16 Core Courses

- 4 years of English.
- 3 years of mathematics (Algebra I or higher).
- 2 years of natural/physical science (1 year of lab if offered by high school).
- 1 year of additional English, mathematics or natural/physical science.
- 2 years of social science.
- 4 years of additional courses (from any area above, foreign language or comparative religion/philosophy).

DIVISION II—14 Core Courses

- 3 years of English.
- 2 years of mathematics (Algebra I or higher).
- 2 years of natural/physical science (1 year of lab if offered by high school).
- 2 years of additional English, mathematics or natural/physical science.
- 2 years of social science.
- 3 years of additional courses (from any area above, foreign language or comparative religion/philosophy).

DIVISION II—16 Core Courses (2013 and After)

- 3 years of English.
- 2 years of mathematics (Algebra I or higher).
- 2 years of natural/physical science (1 year of lab if offered by high school).
- 3 years of additional English, mathematics or natural/physical science.
- 2 years of social science.
- 4 years of additional courses (from any area above, foreign language or comparative religion/philosophy).

Career Planning



All Albemarle County high school students will graduate with a Career Plan.

CAREER PLANNING

All Albemarle County high school students will graduate with a Career Plan. With the support of school counselors and career specialists, students will develop and refine their career plan through the 4-year planning process. The plan allows students to:

- Establish short term and long term education/career goals;
- Assess personal interests as they relate to career decisions;
- Formulate thoughtful educational plans that reflect rigorous academics in students' chosen career directions;
- Participate in electives, extra-curricular activities, and community service projects supporting students' career directions; and
- Include internships or cooperative work experiences during the 11th or 12th grades.



Career planning activities:

As students mature, change, and develop new skills, they may modify their career plan to reflect their new interests and goals. The career interest inventories and activities the students complete during high school utilize the sixteen career clusters from the State Department of Education (see opposite page).

9th grade personal goal setting, career pathways survey (registration), curriculum expo, career plan update, year-end review

10th grade personal goal setting, career pathways survey (registration), curriculum expo, career plan update, interest inventory, career fair, year-end review

11th grade personal goal setting, internship/ CTE co-op experience, resume workshop, curriculum expo, career plan update, college and career prep workshop, year-end review

12th grade personal goal review, internship/ CTE co-op experience, finalize college and career plans workshop, finalize resume, career plan update, exit survey

All Grades outside learning experiences: clubs, sports, job shadowing, community service, part-time/summer job, student government, internship, teacher cadet

CAREER PATHWAYS

VIRGINIA'S 16 CAREER CLUSTERS AND ALBEMARLE COUNTY'S 6 CAREER PATHWAYS

Career clusters are broad groupings of occupations and industries based on commonalities among job responsibilities. They provide an organizing tool for students to investigate their career pathways. Career pathways help students identify a focused direction for planning a course schedule. The chart below shows how Virginia's 16 Career Clusters relate to Albemarle County's 6 Career Pathways.

VIRGINIA'S 16 Career Clusters		ALBEMARLE COUNTY'S 6 Career Pathways	
1	Arts, AV, Technology & Communications	1	Arts, AV, Communications, & Humanities
2	Health Science	2	Health Services
3	Hospitality & Tourism	3	Hospitality & Tourism Services
4	Education & Training	4	Legal, Protective, Education, & Human Services
5	Human Services		
6	Law, Public Safety, Corrections, & Security		
7	Government & Public Administration		
8	Business Management & Administration	5	Business, Finance, Marketing, & Information Technology
9	Finance		
10	Information Technology		
11	Marketing, Sales, & Service		
12	Agriculture, Food, & Natural Resources	6	Engineering, Technology, Science, & Natural Resources
13	Architecture & Construction		
14	Transportation, Distribution, & Logistics		
15	Manufacturing		
16	Science, Technology, Engineering, & Mathematics		



How Can Career Pathways Help?

Students will:

- have a clearer picture of their careers of interest;
- select classes that match their career interests;
- choose outside learning experiences that enrich career understanding; and
- develop foundational knowledge and career skills.

VIRGINIA'S 16 CAREER CLUSTERS

1. Arts, Audio/Visual Technology and Communication



Do you enjoy creative activities such as music, writing, entertainment and art?
Do you like to communicate ideas?
Are you a creative thinker?
Do you like to be in the spotlight?

Diploma with some training	Certification or Associate degree	College degree plus
Printing Press Operator	Desktop Publisher, Stylist	Graphic Artist, Illustrator
Live Sound Engineer	TV/Broadcast Technician	Reporter, Newscaster
Actor, Dancer, Musician	Photographer	Film Editor, Director, Producer

2. Health Science



Do you like to care for sick people or help them stay well?
Are you interested in diseases and in how the body works?
Do you like to provide a service to people?
Do you like science and lab experiments?

Diploma with some training	Certification or Associate degree	College degree plus
Dental Assistant	Dental Hygienist	Dentist
Home Health Aide, Nurse Aide	LPN, Registered Nurse, EMT	Physician
(Most careers in Health Science require certification or college degrees)	Surgical Technician, Biotechnology Technician	Radiation Therapist
	Fitness Trainer, Physical/Occupational Therapy Assistant	Physical/Occupational Therapist, Athletic Trainer

3. Hospitality and Tourism



Do you like to be with people?
Do you enjoy playing or teaching sports?
Do you like to travel or work at a resort?
Do you like to prepare meals?

Diploma with some training	Certification or Associate degree	College degree plus
Tour Guide	Travel Agent	Meeting/Event Planner
Guest Service Representative	Hotel Manager, Flight Attendant	Resort Manager, Marketing Manager
Cook, Caterer	Chef, Food Service Manager	Coach, Athletic Trainer

4. Education and Training



Are you friendly, outgoing, understanding?
Are you good at explaining things?
Do you enjoy helping others meet their goals?
Do you like working with adults or children?

Diploma with some training	Certification or Associate degree	College degree plus
Child Care Worker	Teacher's Aide, Preschool Teacher, Fitness Instructor	Teacher
Library Assistant	Most careers in this field require 4+ years of college.	School Counselor, Career Counselor, School Psychologist

5. Human Services



Do you like to help people solve problems or reach goals?
Do you enjoy providing a service to others?
Is it important to you to do something that helps others?
Are you friendly, outgoing, a good listener, and understanding?

Diploma with some training	Certification or Associate degree	College degree plus
Personal Care Aide, Hair Stylist	Welfare Eligibility Worker & Interviewer	Psychologist
Customer Service	Social & Human Services Assistant	Social worker
Recreation Worker	Residential Counselor	Counselor

Most careers in this field require 4+ years of college

6. Law, Public Safety, Corrections and Security



Are you good at dealing with people in stressful situations?
Are you good at controlling your own emotions to help others?
Are you a good role model?

Diploma with some training	Certification or Associate degree	College degree plus
Security Guard	Police Officer	Lawyer
Emergency Dispatcher	Paralegal	Federal Investigator
Firefighter	Private Investigator	Probation Officer

Jobs in these fields are also available in the military.

7. Government and Public Administration



Are you interested in politics?
Do you like to help the public?
Do you want to get involved in local issues?

Diploma with some training	Certification or Associate degree	College degree plus
Postal clerk	Eligibility worker	City Manager
The range of government jobs is enormous. Workers can obtain a job in an assortment of career paths.		County Executive
		Urban/Regional Planner
		Legislative Staffer

10. Information Technology



Are you patient, precise, and attend to detail?
Do you like working with people to solve their computer problems?
Are you curious about how computer games and programs work?
Are you a logical and analytical thinker?

Diploma with some training	Certification or Associate degree	College degree plus
Computer Operator	Computer Technical Support Specialist	Computer Software Engineer, Geographic Information Systems Specialist (GIS)
Computer Service Technician	Computer Network Support Technician	Computer Game Developer, Web Developer

8. Business, Management and Administration



Have you ever thought of starting your own business?
Do you like working in an office and using computers?
Do you enjoy dealing with the public?
Do you communicate effectively?

Diploma with some training	Certification or Associate degree	College degree plus
Customer Service Representative	Office Manager	Human Resources Specialist
Bookkeeper, Fiscal Tech.	Property Manager	Management Analyst
Medical Administrative Specialist	Administrative Assistant, Secretary	Chief Executive Officer (CEO)

11. Marketing, Sales and Service



Do you enjoy providing a service to others?
Can you write a good advertisement?
Do you like helping people find solutions to their problems?
Are you good at persuading people to make purchases and convincing people to do things?
Are you a creative person?

Diploma with some training	Certification or Associate degree	College degree plus
Vehicle Sales	Real Estate Sales Agent	Sales Engineer, Buyer
Sales Associate/Asst. Manager	Sales Representative, Store/Regional Manager	Marketing Manager, Public Relations Representative
Telemarketer	Auctioneer, Merchandise Display Artist	Market Research Analyst

9. Finance



Do you like working with numbers?
Do you have excellent attention to detail?
Do enjoy tracking financial information?

Diploma with some training	Certification or Associate degree	College degree plus
Bank Teller	Securities Sales Assistant	Accountant, Loan Officer
Customer Service Representative	Tax preparer	Stock Broker, Bank Manager
Insurance Clerk	Insurance Sales Agent	Insurance Adjuster, Underwriter

Career clusters are broad groupings of occupations and industries based on commonalities among job responsibilities. They provide an organizing tool for students to investigate their career pathways. Career pathways help students identify a focused direction for planning a course schedule.



12. Agriculture, Food and Natural Resources



Do you have a green thumb?
Do you love working with animals?
Is protecting the environment one of your passions?

Diploma with some training	Certification or Associate degree	College degree plus
Vet Assistant, Dog Groomer	Veterinary Technician	Veterinarian, Zookeeper
Arborist, Logger	Environmental Technician, Water Treatment Plant Operator	Agricultural Scientist, Environmental Scientist
Groundskeeper, Florist	Farm Manager, Fish/Game Warden	Forester, Park Ranger

13. Architecture and Construction



Do you like reading blueprints and drawing building structures?
Do you appreciate the pride of building something that will stay?
Do you like working with tools?
Are you willing to work outside?

Diploma with some training	Certification or Associate degree	College degree plus
Architectural Drafter	Architectural Technician	Architect
Floor Layer, Construction Helper	Electrician, Plumber, Carpenter	Construction Manager
Surveying Assistant	Civil Engineering Tech., Surveyor Technician	Civil Engineer

14. Transportation, Distribution & Logistics



Do you like working on or operating cars, trucks, or airplanes?
Do you understand how things work?
Do you like moving or handling material, products, or people?

Diploma with some training	Certification or Associate degree	College degree plus
Dispatcher	Flight Attendant	Pilot
Auto Detailer, Tire Repairer/Changer	Automobile or Auto Body Technician, Aircraft Mechanic	Air Traffic Controller
Shipping and Receiving Clerk	Flight Attendant	Manager: Airport, Fleet

15. Manufacturing



Do you like working with tools, machinery, and computers?
Do you enjoy seeing the concrete result of your work?
Do you enjoy designing and problem solving?

Diploma with some training	Certification or Associate degree	College degree plus
Forklift Operator	Laser technician	Industrial Production Manager
Welder	Production Planner	Quality Assurance Specialist
Quality Control Technician	Electronics Technician	Environmental Engineer

16. Science, Technology, Engineering & Mathematics



Do you have talent in math and science?
Are you good at abstract thinking?
Do you like to explore new ideas and test them methodically?

Diploma with some training	Certification or Associate degree	College degree plus
Drafter	Electronics Technician	Engineer
Field Crew Surveyor	Civil Engineering Technician, Aerospace Technician	Meteorologist
Lab Animal Caretaker	Biological Technician	Anthropologist, Archaeologist



Creativity and Career Planning

A well-rounded high school program involves the careful planning of electives. The 21st century work place requires new multi-disciplinary and creative ways of thinking about problem solving and managing knowledge. Thus, we suggest that students think creatively about how a variety of electives, especially in the areas of art, business, engineering, and human relations, can support their career goals. Remember, creativity is the key to success in the 21st century!

ELECTIVES AND CAREER PATHWAYS LISTED BY SCHOOL

Please refer to the Course Description Section for complete listings, descriptions, prerequisites and credits information.

Albemarle High School (AHS)

www.k12albemarle.org/AlbemarleHS

Pathway / CourseGrade Level

ART, AV, COMMUNICATION & HUMANITIES

Advanced Concert Choir	10-12
Art I	9-12
Art II	10-12
Art III	11-12
Art IV	12
Art History (AP)	11-12
Ceramics I	9-12
Ceramics II	10-12
Ceramics III	11-12
Ceramics IV	12
Concert Band I-IV	9-12
Concert Choir I-IV	9-12
Concert Orchestra I-IV	9-12
CORE+	9-12
Creative Writing I-IV	9-12
Debate I	9-12
Design, Multi-Media & Web Tech I, II	9-12
Drama I	9-12
Drama II	10-12
Drama III	11-12
Drama V	12
Ensemble— Men’s & Women’s I-IV	9-12
Ensemble—Women’s Advanced	10-12
Fashion Design	9-12
Fashion Marketing I, II	10-12
Film Studies/Filmmaking (II)	10-12
Game Studies	9-12
Graphic Communications	9-12
Guitar I, II	9-12
History through Film	11-12
History of Musical Theatre	9-12
Humanities I-III	9-12
Issues of the Modern World	11-12
Jazz Band I-IV	9-12
Journalism I-IV	9-12
Life in the Garden	9-12
Marching Band	9-12
Music Industry Technology (CATEC)	11-12
Music Theory (AP available)	9-12
Percussion Ensemble	9-12
Photography I	9-12
Photography II, IV	10-12
Photography III	11-12
Piano/Keyboard I	9-12
Printmaking	10-12
Psychology (AP)	10-12
Show Choir I-IV	9-12
Sociology	10-12
Speech & Communication	9-12
String Ensemble I-IV	9-12
Studio Art (AP)	11-12
Symphonic Band I-IV	9-12
Treble Jazz I-III	9-12
Television Production I-IV	9-12
Visual Thinking/Intro to Film	10-12
Vocal Jazz	10-12
Wind Ensemble	9-12
Women in Art and Literature	10-12
World Languages	9-12
Yearbook I-IV	9-12

BUSINESS, FINANCE, MARKETING & INFORMATION TECHNOLOGY

Applied Management Principles, Bus 202	11-12
Business Cooperative Ed.	11-12
Business Management	9-12
Computer Science I, II	9-12

Pathway / CourseGrade Level

Computer Science A	11-12
Design, Multimedia & Web Tech I, II	9-12
Digital Imaging Technology I, II	9-12
Digital Imaging Technology III, IV	10-12
Graphic Communications	9-12
Internet Marketing thru Social Media	10-12
Marketing I, II (Coop available)	10-12
Microsoft IT I,II	9-12
Principles of Management, Bus 200	11-12
Probability and Statistics	12
Psychology	10-12
Speech & Communication	9-12
Sports, Entertainment & Recreation Marketing	10-12
Sports, Entertainment & Recreation Marketing II	11-12
Statistics (AP)	11-12
World Languages	9-12

ENGINEERING, TECHNOLOGY, SCIENCE & NATURAL RESOURCES

Advanced Computer Science A	11-12
Architectural Drawing	10-12
Architectural Drawing/ ARC 121 Architectural Drafting I (PVCC)	10-12
Astronomy (PVCC)	10-12
Auto Body Technology I, II (CATEC)	10-12
Auto Service Technology I, II (CATEC)	11-12
Biology (AP)	11-12
Building Trades I, II (CATEC)	10-12
Chemistry (AP)	11-12
Computer Science I, II	9-12
Computer Science A (AP)	11-12
Design, Multi-Media & Web Tech I, II	9-12
Ecology	10-12
Engineering Drawing/ DR 140 Technical Drawing (PVCC)	10-12
Environmental Science (AP)	10-12
Geology Technology	10-12
Masonry I, II (CATEC)	10-12
Math 166 Pre-Calculus I (PVCC)	12
Math Analysis	11-12
Physics B (AP)	11-12
Probability and Statistics	12
Robotics and Automation	9-12
Statistics (AP)	11-12
Technical Drawing-Basic	9-12
World Languages	9-12

HEALTH SCIENCES

Anatomy & Physiology	10-12
Biology (AP)	11-12
Calculus (AP) AB	11-12
Calculus (AP) BC	12
Chemistry (AP)	11-12
Dental Assistant I (CATEC)	11-12
Early Childhood Development	9-12
EMT & Firefighter (CATEC)	11-12
Ethnic Studies	9-12
Fitness/Weight Training I, II	11-12
Fitness/Yoga I, II	11-12
Health & Medical Sciences	9-12
Health & Medical Science Academy@MHS	9-10
Math 166 Pre-Calculus I (PVCC)	12
Medical Terminology (PVCC)	11-12
Nurse Aide (CATEC)	11-12
Ordinary Differential Equations/ MTH 279 (PVCC)	9-12

Pathway / CourseGrade Level

Pharmacy Tech (CATEC)	11-12
Physics B (AP)	11-12
Psychology (AP)	10-12
Sociology	10-12
Sports Medicine I	9-12
Sports Medicine II	10-12
Vector Calculus/MTH 277 (PVCC)	9-12
World Languages	9-12

HOSPITALITY & TOURISM SERVICES

Barbering I, II (CATEC)	11-12
Business Management	9-12
Cosmetology I, II (CATEC)	11-12
Culinary Arts I	9-12
Culinary Arts II (PVCC)	11-12
Fitness/Weight Training	11-12
Fitness/Yoga I & II	11-12
Hospitality, Tourism and Recreation	9-12
Interior Design & Housing	9-12
International Foods	9-12
Intro to Culinary Arts I, II (CATEC)	10-12
Marketing I, II	10-12
Sports, Entertainment & Recreation Marketing	10-12
Sports, Entertainment & Recreation Marketing II	11-12
World Languages	9-12

LEGAL, PROTECTIVE, EDUCATION & HUMAN SERVICES

Applied Management Principles, Bus 202	11-12
Barbering I, II (CATEC)	11-12
Business Management	9-10
Cosmetology I, II (CATEC)	11-12
Debate	9-12
Early Childhood Development	9-12
Emergency Medical Tech. & Firefighter	11-12
Fitness/Weight Training	11-12
Fitness/Yoga I & II	11-12
Health & Medical Sciences	9-12
Issues of the Modern World	11-12
Leadership I-IV	9-12
Mediation Training I, II	9-12
Practical Law	10-12
Psychology (AP)	10-12
Sociology	10-12
Speech & Communication	9-12
Sports Medicine I	9-12
Sports Medicine II	10-12
Virginia Teachers for Tomorrow I, II	11-12
World Languages	9-12

ADDITIONAL ENRICHMENT & CAREER EXPERIENCES

*AVID	9-12
Business Cooperative Education	11-12
Independent Study	9-12
Junior/Senior Internship	11-12
Economics and Personal Finance	11-12
SAT Prep/Successful Strategies for College	10-12

* admission criteria apply

All students are expected to have a community-based learning experience by the time they graduate.

ELECTIVES AND CAREER PATHWAYS LISTED BY SCHOOL

Please refer to the Course Description Section for complete listings, descriptions, prerequisites and credits information.

Monticello High School (MoHS)

www.k12albemarle.org/Monticello

Pathway / CourseGrade Level

ART, AV, COMMUNICATION & HUMANITIES

Art I	9-12
Art II	10-12
Art III	11-12
Art IV	12
Art Studio (AP)	11-12
Basics of Tech Theater	9-12
Ceramics I	9-12
Ceramics II	10-12
Ceramics III	11-12
Ceramics Advanced Sculptural	11-12
Chamber Music Ensemble	10-12
Concert Band	9-12
Concert Choir	9-12
Creative Writing I, II	9-12
Debate I	9-12
Design, Multimedia & Web Tech. I, II	9-12
Digital Imaging I-IV	9-12
Drama I	9-12
Drama II	10-12
Drama III	11-12
Drama V	12
Fashion Design	9-12
Filming & Digital Video Editing	10-12
History of Musical Theatre	9-12
Improvisation and Comedy	9-12
Interior Design & Housing	9-12
Jazz Band	9-12
Journalism I-IV	9-12
Marching Band	9-12
Math 166 Pre-Calculus I (PVCC)	12
Math 171 Applied Calculus (PVCC)	12
Multimedia Crafts/Design	9-12
Multimedia Crafts II	10-12
Multimedia Crafts III, IV	11-12
Music Industry Technology (CATEC)	11-12
Music Theory (AP available)	9-12
Percussion Ensemble	9-12
Philosophy	10-12
Photography I-IV	9-12
Psychology & AP	10-12
Show Choir I-IV	9-12
Speech & Communication	9-12
String Ensemble	9-12
Symphonic Band I-IV	9-12
Television Production I-IV	9-12
Treble Jazz I-III	9-12
Vocal Jazz	10-12
Wind Ensemble	9-12
World Languages	9-12
Women's Ensemble-Advanced	10-12
Yearbook I-IV	9-12

BUSINESS, FINANCE, MARKETING, & INFORMATION TECHNOLOGY

Business Law I/Bus 241 (PVCC)	11-12
Business Management	9-12
Business & Marketing Coop	11-12
Classes in Art	9-12
Computer Science I, II	9-12
Design, Multimedia & Web Tech. I, II	9-12
Digital Imaging Technology I-IV	9-12
Digital Music (Intro)	9-12
Digital Music Collective	9-12
Economics & Personal Finance	11-12
Marketing I, II	10-12
Microsoft IT I, II	9-12
Office Specialist I-III	9-12

Pathway / CourseGrade Level

Principles of Business & Marketing	9-10
Principles of Info Systems ITE 120 (PVCC)	10-12
Principles of Management, Bus 200 (PVCC)	11-12
Sports, Entertain. & Rec. Marketing I, II	10-12
Web Design I, II ITD 110 & 210 (PVCC)	11-12
World Languages	9-12
Yearbook I-IV	9-12

ENGINEERING, TECHNOLOGY, SCIENCE, & NATURAL RESOURCES

Anatomy & Physiology	10-12
Animal Studies	11-12
Architecture II	11-12
Architecture Drawing I, II ARC 121 (PVCC)	10-12
Auto Body Tech I, II (CATEC)	10-12
Auto Service Tech I, II (CATEC)	11-12
Basic Technical Drawing	9-12
Biology—Ecology Cooperative	10-12
Building Trades I, II (CATEC)	10-12
Classes in Art	9-12
Computer Science I, II	9-12
Construction Technology	10-12
Design, Multimedia & Web Tech. I, II	9-12
Digital Imaging I-IV	9-12
Ecology	10-12
Engineering Design EGR 115 (PVCC)	10-11
Engineering (Intro) EGR 120	11-12
Engineering Drawing DR 140 (PVCC)	10-12
Environmental Science AP	10-12
Geology	9-12
Geospatial Technology I, II	10-12
Geospatial Technology (CATEC)	11-12
Masonry I, II (CATEC)	10-12
Materials & Processes Technology	9-11
Micro Power Systems	9-12
Microsoft IT I,II	9-12
Music Industry Technology (CATEC/MHS)	11-12
Principles of Info Systems ITE 120 (PVCC)	10-12
Technical Drawing	9-12
World Languages	9-12

LEGAL, PROTECTIVE, EDUCATION & HUMAN SERVICES

Art Classes	9-12
Barbering I, II (CATEC)	11-12
Business Management	9-12
Business & Marketing Cooperative	11-12
Cosmetology I, II (CATEC)	11-12
Debate	9-12
EMT & Firefighter (CATEC)	11-12
Health/Medical Sciences (Intro)	9-12
Health/Medical Sciences (PVCC)	10-12
Mediation Training I, II	9-12
MS IT I,II	9-12
Principles of Business & Marketing	9-10
Psychology & AP	10-12
Speech & Communication	9-12
Sports Medicine (Intro)	11-12
VA Teachers for Tomorrow I, II (PVCC)	11-12
World Languages	9-12

HEALTH SERVICES

Anatomy & Physiology	10-12
Animal Studies	11-12
Culinary Arts (Introduction—MHS)	9-12
Culinary Arts (Introduction—CATEC)	10-12
Culinary Arts I (MHS)	9-12
Culinary Arts II (PVCC)	11-12

Dental Assistant (CATEC)	11-12
EMT & Firefighter (CATEC)	11-12
Fitness/Weight Training	11-12
Health/Medical Sciences (Intro)	9-12
Health/Medical Sciences (PVCC)	10-12
Mediation I, II	9-12
Medical Terminology (PVCC)	11-12
Nurse Aide (CATEC)	11-12
Pharmacy Technician (CATEC)	11-12
Physics I	10-12
Physics B (AP)	11-12
Psychology & AP	10-12
Sports Medicine I	9-12
Sports Medicine II	10-12
World Languages	9-12

Note: Students interested in medical careers should consider taking chemistry & other higher level sciences in high school.

HOSPITALITY & TOURISM SERVICES

Barbering I, II (CATEC)	11-12
Business Management	9-12
Business & Marketing Cooperative	11-12
Cosmetology I, II (CATEC)	11-12
Culinary Arts (Introduction - MHS)	9-12
Culinary Arts (Introduction-CATEC)	10-12
Culinary Arts I (MHS)	9-12
Culinary Arts II (PVCC)	11-12
Fashion Design (Intro)	9-12
Fitness/Weight Training	11-12
Interior Design & Housing (Intro)	9-12
Marketing I, II	10-12
Principles of Business & Marketing	9-10
Sports, Entertain. & Rec. Marketing	10-12
World Languages	9-12

ADDITIONAL ELECTIVES, ENRICHMENT, & CAREER EXPERIENCES

*AVID	9-12
Business & Marketing Cooperative	11-12
Economics & Personal Finance	9-12
Education for Employment & Work Study	9-12
*ESOL	9-12
*Health & Medical Sciences Academy	9
*Internship (Junior/Senior) Program	11-12
*Independent Study	9-12
Leadership I-IV	9-12
*Math, Engineering and Science Academy (MESA)	9-12
SAT Prep/Successful Strategies for College	10-12
10th Grade Exploratory (CATEC) includes English 10 and Trade Exploratory	10-12
Summer Internships (CATEC)	12
Health and Medical Science or Information Technology fields (CATEC)	9-12
Mediation I, II	9-12
Summer Camps (CATEC)- Architecture and Construction	8-10
Culinary Arts and Cosmetology	8-10
World Languages	9-12
*admission criteria apply	

All students are encouraged to have a community based learning experience by the time they graduate. For example: Internship, Cooperative Education, Virginia Teachers For Tomorrow, Independent Study, Community Service Work.

ELECTIVES AND CAREER PATHWAYS LISTED BY SCHOOL

Please refer to the Course Description Section for complete listings, descriptions, prerequisites and credits information.

Western Albemarle High School (WAHS)

www.k12albemarle.org/WesternAlbemarleHS

Pathway / CourseGrade Level

ART, AV, COMMUNICATION & HUMANITIES

African Culture, Music and Dance I, II . . .	10-12
Art I	9-12
Art II	10-12
Art III	11-12
Art IV	12
Art History (AP)	11-12
Art Studio (AP)	11-12
Basics of Tech Theater	9-12
Ceramics I	9-12
Ceramics II	10-12
Ceramics III	11-12
Ceramics IV	12
Concert Choir I-IV	9-12
CORE/t9-12	
Creative Writing/Literary Magazine I, II . . .	9-12
Digital Imaging I-III	9-12
Drama I9-12	
Drama II	10-12
Drama III	11-12
Drama IV	12
Drawing 121/122 (PVCC)	9-12
European History (AP)	10-12
Film Studies/Filmmaking	10-12
Film Studies/Filmmaking II	9-12
Guitar I, II	9-12
History through Film	11-12
Jazz Band I-IV	9-12
Journalism I-IV	9-12
LAUNCH	9
Multimedia Crafts I-IV	9-12
Music Appreciation/MUS 121	9-12
Music Industry Technology (CATEC)	11-12
Percussion Ensemble	9-12
Philosophy	10-12
Photography I-III	9-12
Psychology	10-12
Psychology (AP)	10-12
Sociology	10-12
Speech & Communication	9-12
Statistics (AP)	11-12
String Ensemble I-IV	9-12
Symphonic Band I-IV	9-12
Teaching Fellows Program	11-12
Television Production I-IV	9-12
Virginia Teachers for Tomorrow I, II	11-12
Women's Ensemble (Chorus) I-IV	9-12
World Languages I-IV (French, German, Japanese, Latin, Spanish)	9-12
Yearbook I-IV	9-12

Pathway / CourseGrade Level

BUSINESS, FINANCE, MARKETING, & INFORMATION TECHNOLOGY

Computer Business Co-op	11-12
Computer Science I, II	9-12
Design Multimedia & Web Tech I, II	9-12
Digital Imaging I-III	9-12
Economics and Personal Finance	11-12
Geospatial Technology I, II	10-12
Information Technology Fundamentals . . .	9-12
Marketing I, II (Co-op available)	10-12
Principles of Business & Marketing	9-10
Sports Marketing (Co-op available) I, II . .	10-12
Web Design I (PVCC)	11-12
Web Design II/ITD 210 (PVCC)	12
World Languages I-IV (French, German, Japanese, Latin, Spanish)	9-12
World Languages AP (French, Spanish Language, Spanish Literature, Latin)	grades vary
Yearbook I-IV	9-12

ENGINEERING, TECHNOLOGY, SCIENCE, & NATURAL RESOURCES

Animal Studies	11-12
Architectural Drawing	10-12
Architectural II	11-12
Architectural Drawing I, II (PVCC)	10-12
Astronomy (PVCC)	10-12
Auto Body Tech I, II (CATEC)	10-12
Auto. Service Tech I, II (CATEC)	11-12
Biology (AP)	11-12
Building Trades I, II (CATEC)	10-12
Calculus (AP) AB, BC	11-12
Chemistry (AP)	11-12
Computer Science A (AP)	11-12
Design Multimedia & Web Tech I, II	9-12
Ecology	10-12
Engineering Research I	9-12
Geospatial Technology I, II	10-12
Manufacturing Technology I, II	10-12
Materials & Processes Technology	9-11
Masonry I, II (CATEC)	10-12
MESA at AHS	9-12
Physics II (AP)	9-12
Robotics & Automation	9-12
Statistics (AP)	11-12
Technical Drawing	9-12
Web Design I, II ITD 110 & 210 (PVCC) . .	11-12

LEGAL, PROTECTIVE, EDUCATION & HUMAN SERVICES

Barbering I, II (CATEC)	11-12
Cosmetology I, II (CATEC)	11-12
Dental Assistant (CATEC)	11-12
EMT & Firefighter (CATEC)	11-12
Pharmacy Tech (CATEC)	11-12
Practical Law	10-12
Psychology (AP)	10-12
Speech & Communication	9-12
Teaching Fellows Program	11-12
Virginia Teachers for Tomorrow I, II	11-12

Pathway / CourseGrade Level

HEALTH SERVICES

Biology (AP)	11-12
Chemistry (AP)	11-12
Dental Assistant (CATEC)	11-12
EMT & Firefighter (CATEC)	11-12
Fitness/Weight Training	11-12
Fitness/Yoga I, II	11-12
Health and Medical Academy at MHS . . .	9-12
Nurse Aide (CATEC)	11-12
Pharmacy Tech (CATEC)	11-12
Physics (AP)	11-12
Psychology	10-12
Psychology (AP)	10-12
Sports Medicine Intro	11-12
Team Sports	9-12
World Languages I-IV (French, German, Japanese, Latin, Spanish)	9-12
World Languages AP (French, Spanish Language, Spanish Literature, Latin)	grades vary

HOSPITALITY & TOURISM SERVICES

African Culture, Music and Dance I, II . .	10-12
Barbering I, II (CATEC)	11-12
Cosmetology I, II (CATEC)	11-12
Culinary Arts I, II (CATEC)	10-12
Fitness/Yoga I, II	11-12
Fitness/Weight Training	11-12
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Introduction to Sports Medicine	11-12
Marketing I, II, Co-op available	10-12
Principles of Business & Marketing	9-10
World Languages I-IV (French, German, Japanese, Latin, Spanish)	9-12
World Languages AP (French, Spanish Language, Spanish Literature, Latin)	grades vary

ADDITIONAL ELECTIVES, ENRICHMENT, & CAREER EXPERIENCES

Trade Exploratory Cooperative Education– Business, Marketing Independent Study (CATEC)	10
Independent Study	9-12
Internship (Junior/Senior)	11-12
Leadership	9-12
SAT Prep/Successful Strategies for College	10-12
Summer Internship (CATEC)	11-12
Summer camp (CATEC)	9-12
*Education for Employment & Work Study	9-12
*ESOL...9-12	
*AVID...9-12	

* Admission criteria apply

All students are expected to have community-based learning experiences before graduation: independent study, community service, internship, coop.

Index of Courses

Course titles are listed here in alphabetical order. Go to the page number for detailed information on course descriptions, prerequisites, grade levels, schools where offered, and credits.

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VISION

All learners believe in their power to embrace learning, to excel, and to own their future.

VALUES

EXCELLENCE: We believe in meaningful learning that stretches people to the frontiers and boundaries of their abilities.

YOUNG PEOPLE: We believe young people deserve the best we have to offer. Each individual child is capable and has the right to safety, mutual respect, and learning.

COMMUNITY: We believe in our collective responsibility to work together in a cooperative effort to achieve common goals by building communities of practice, establishing a high quality learning community, and listening to the community.

RESPECT: We believe in treating all individuals with honor and dignity.

MISSION

The core purpose of Albemarle County Public Schools is to establish a community of learners and learning, through rigor, relevance, and relationships, one student at a time.

GOALS

Goal 1: Prepare all students to succeed as members of a global community and in a global economy.

Goal 2: Eliminate the Achievement Gap.

Goal 3: Recruit, retain and develop a diverse cadre of the highest quality teaching personnel, staff and administrators.

Goal 4: Achieve recognition as a world-class educational system.

Goal 5: Establish efficient systems for development, allocation and alignment of resources to support the Division's vision, mission and goals.