

# Montgomery County Public Schools High School Program of Studies



**2025-2026**



Engage  
Encourage  
Empower

# Mission

Highest aspiration and purpose of the school; a declaration of the unique identity to which the school aspires, its specific purpose, and the means by which it will achieve its purpose

MCPS is an innovative educational community. We value diversity, and we are committed to equity and inclusion. MCPS empowers learners to realize success in an ever-changing global society through collaboration with communities, families, staff, and students. MCPS provides a safe, engaging learning environment and intentional exposure to positive social, emotional, and academic experiences.

# Beliefs

An expression of fundamental values, ethical code, overriding convictions, inviolable principles

1. All students can learn in order to pursue their dreams.
2. Schools are safe places of joy, wonder, and creativity.
3. Every person deserves to be loved, valued, and respected.
4. Kindness is an essential skill of a responsible, productive community member.
5. The diversity of our community is one of our greatest strengths.
6. All people deserve equitable access to opportunities and resources.
7. Every child deserves an advocate.
8. Honoring the voices of students and other stakeholders strengthens the school community.
9. Open communication and feedback are vital to our growth.
10. Learning and teaching are collective efforts that begin at birth and involve the entire community.
11. Relationship building and high expectations are foundational to student success.



# Objectives

An uncompromising commitment to achieve specific, measurable, observable, or demonstrable results that exceed current capability

## 1. Instruction

Each student will have access to exemplary and meaningful learning opportunities that engage them in collaboration, communication, critical thinking, developing creativity, and building connections.



## 2. Learning Environments

Each student will have access to safe and vibrant learning environments that facilitate instruction, learning, and collaboration and promote physical, mental, emotional, and social well-being.



## 3. Poverty

Each student will be provided with resources to address their physiological, social, emotional, and cognitive needs.



## 4. Equity

Each student will have equitable access to resources, programs, opportunities, and learning experiences regardless of barriers.



## 5. Mental Health

Each student will learn resilience and life skills in a safe and supportive environment that promotes social, emotional, mental, and physical well-being.



# Parameters

Boundaries within which the school will accomplish its mission; self-imposed limitations

1. We will base all decisions on what is best for students.

2. We are committed to equity as a priority in all decisions.

3. We will not tolerate discrimination based on race, culture, gender, age, gender identity and expression, sexual orientation, socioeconomic background, national origin, disability or religion.

4. We will model and foster a culture of integrity and respect.

5. We will ensure our allocations of money, time, and talents are aligned with our beliefs.

6. We will practice and promote open, honest, and transparent communication with all stakeholders.

7. We will practice a growth mindset in our continuous improvement efforts.

8. We will ensure that students and staff members are provided with a safe environment that promotes wellness.

9. We will be responsible stewards to sustain our physical and natural resources.

10. We are committed to excellence.



# Equity Statement

**MCPS will intentionally address the needs of all individuals so that each person can achieve their maximum potential.**

## Principles of Equity

### **Impartiality**

Ensure equal treatment of all, regardless of race, ethnicity, socioeconomic status, culture, gender, gender identity, and other protected group status.

### **Opportunity**

Eliminate barriers and obstacles by providing needed resources through planned, systemic strategies that focus on the core of teaching and learning.

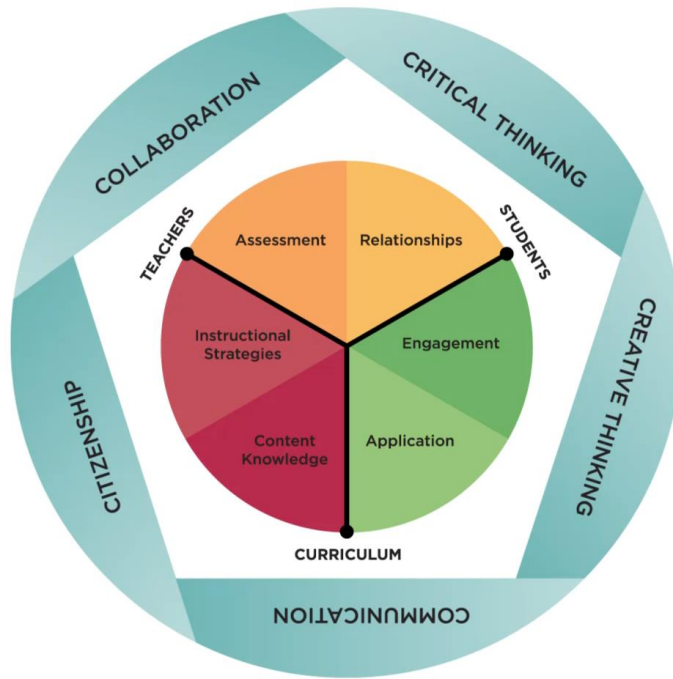
### **Access**

Ensure that all individuals have the same rigorous educational standards, quality programs, and tiered supports.

### **Sense of Belonging**

Promote social and emotional well-being and ensure individuals have the ability to self-advocate and influence decisions affecting them.





Montgomery County Public Schools accomplishes our mission and vision through the implementation of the Model for Effective Instruction.

## MONTGOMERY COUNTY PUBLIC SCHOOLS

750 Imperial Street, Christiansburg, VA 24073 | Phone: (540) 382-5100 | Fax: (540) 381-6127

Bernard F. Bragen, Jr., Ed.D., Division Superintendent

Barbara M. Wickham, Ed.D., Assistant Superintendent for Curriculum & Instruction

TBA, Director of Secondary Education

Anthony Walker, Ed.D, Director of Special Education

### **Auburn High School**

1650 Auburn School Drive

Riner, VA 24149

Phone: (540) 382-5160

**Guidance:** (540) 382-5164

**Principal:** Mr. David Hurd

### **Blacksburg High School**

3401 Bruin Lane

Blacksburg, VA 24060

(540) 951-5706

**Guidance:** (540) 951-5715

**Principal:** Mr. Chris Stewart

### **Christiansburg High School**

100 Independence Boulevard

Christiansburg, VA 24073

Phone: (540) 382-5178

**Guidance:** (540) 382-5186

**Principal:** Mr. Shane Guynn

### **Eastern Montgomery High School**

4695 Crozier Road

Elliston, VA 24087

Phone: (540) 268-3010

**Guidance:** (540) 268-3011

**Principal:** Mr. Todd Lewis

# MCPS Curriculum Staff

<b>English/Language Arts/ Reading/World Languages</b>	TBA, Curriculum Administrator
<b>ESL</b>	Emily Altizer, Curriculum Administrator Bonnie Frazier, Lead Teacher
<b>Mathematics</b>	Jennifer Wall, Curriculum Administrator
<b>Science</b>	Tony Deibler, Curriculum Administrator
<b>History/Social Sciences</b>	David Dickinson, Curriculum Administrator
<b>Career &amp; Technical Education and Business Partnerships</b>	TBA, Curriculum Administrator
<b>Governor's STEM Academy</b>	Veronica Spradlin, Lead Teacher
<b>World Languages</b>	Ashley Koontz, Lead Teacher
<b>Gifted Programs</b>	Helen Fotinos, Administrator
<b>Health &amp; Physical Education</b>	Kelley Sutphin, Lead Teacher
<b>Visual Arts</b>	Carrie Lyons, Lead Teacher
<b>Secondary Instrumental Music</b>	Harry Farmer, Lead Teacher
<b>Secondary Vocal Music</b>	Kaitlyn Seidemann, Lead Teacher
<b>Secondary Theatre Arts</b>	Makala Witten, Lead Teacher
<b>Project AIM</b>	Elizabeth Nester, Department Lead
<b>Secondary Library Programs</b>	Kelly Passek, PhD, Lead Librarian

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# COURSE SELECTION INFORMATION

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MCPS is committed to assisting all students in developing their abilities and interests. The MCPS High School Program of Studies is comprehensive and offers preparation for students who plan to continue their formal education beyond high school and for those who plan to enter directly into the workplace or the military. Among the most important decisions students make are those related to the programs they will pursue. These decisions should be made after careful assessment of students' capabilities and interests and with the assistance of parents, school counselors, and teachers. By focusing on our mission that every student will graduate career and college ready and become a productive, responsible citizen, MCPS is committed to carefully planning for the future of each student.

The titles and descriptions of courses required for high school graduation are listed by grade level. Other course selections focus on "Course to Career" connections and are organized by career path/career clusters. **Course maps for how students can pursue completer programs in certain specific careers through a combination of MCPS/NRCC coursework while in high school (including extension beyond high school graduation) are also provided.**

**The MCPS Program of Studies includes a complete listing of courses offered at MCPS High Schools. Below each course description, specific school information is provided.** To the extent possible, all MCPS high school students will have equal access to course opportunities division-wide. Students who are interested in pursuing courses offered at a high school other than their own should discuss options for taking these courses with their school counselor.

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

School counselors are available to assist students in academic planning, and goal setting as well as provide support through their college/career goals. Each student will start high school with an individualized [Academic & Career Plan \(ACP\)](#). High school counselors meet with each rising 9<sup>th</sup> grader to review his/her ACP and assist with mapping out future course selections that align with his/her career path. In addition to the annual academic planning and course selection sessions, counselors assist students and parents to address other issues that create challenges to academic success. Each high school counseling program offers workshops for students and parents designed to enhance orientation to academic success, awareness of the college admission process, scholarship and financial aid opportunities, and transitions after high school. Parents are encouraged to participate in the development of the student's program of studies that maps the route to the chosen diploma option and graduation.

Students are encouraged to select rigorous courses that will provide an intellectual challenge and that will better prepare them for future courses and educational and/or career pursuits beyond high school. In considering students' applications for admission, colleges and universities look closely at the number and kind of advanced courses students have taken. The academic rigor of courses taken in high school can be a significant factor in a student being accepted by the college of his/her choice.

## MCPS COURSES by CAREER CLUSTER

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The [career cluster charts](#) found in the Appendix (pages 212-228) provide students with an idea of the different types of jobs and careers that are available to them. Montgomery County courses are listed in the column entitled high school courses to consider. If you are interested in a particular career cluster, please consider these recommendations when signing up for classes.

Career Clusters are groupings of occupations and industries that are used for organizing curriculum design and career counseling and guidance. **The 16 Career Clusters are as follows:**

- [Agriculture, Food and Natural Resources](#)
- [Architecture and Construction](#)
- [Arts, Audio/Video Technology and Communications](#)



- [Business Management and Administration](#)
- [Education and Training](#)
- [Finance](#)
- [Government and Public Administration](#)
- [Health Science](#)
- [Hospitality and Tourism](#)
- [Human Services](#)
- [Information Technology](#)
- [Law, Public Safety, Corrections and Security](#)
- [Manufacturing](#)
- [Marketing](#)
- [Science, Technology, Engineering and Mathematics](#)
- [Transportation, Distribution and Logistics](#)

## DUAL ENROLLMENT COURSES

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MCPS offers high school students the opportunity to earn college credits in both academic coursework and in career and technical education by taking courses that are dual enrolled with New River Community College (NRCC). Upon successful completion of a dual-enrolled (DE) course, students receive both college credit and high school credit towards graduation.

DE courses are offered for course credit with the same departmental designations, numbers, titles, and credits as those listed in the NRCC Course Catalog. All DE courses are equivalent to the NRCC courses and contain the same components of the syllabi, level and rigor of content, assessment and evaluation of student learning outcomes and instructional effectiveness. DE courses are taught by MCPS high school faculty who have met the qualifications to teach at the college level. MCPS teachers who teach DE courses are considered NRCC adjunct faculty. NRCC maintains institutional control of all dual enrollment courses to ensure curricular integrity of those courses.

By taking dual enrollment courses, students gain experience with the rigor of college work and college faculty expectations while taking these courses during regular school hours at their high school. They also may accelerate a student's college career and save money by allowing them to enter college with credits applicable to their degree program in their post-graduate plans. A minimum grade of "C" is required for a dual enrollment course to transfer to a college or university. NRCC CTE dual enrolled course credits earned are applicable to specific curricula and are intended to prepare students for employment in those areas. While some of these courses may be accepted for transfer, no unified policy exists on the transfer of these courses.

All transfer credits are at the discretion of the receiving college or university. The dual enrollment course transfers to the college or university based on the equivalency defined for the partnering community college by the four-year institution. Transferability of courses can be confirmed by visiting the [Transfer Virginia Portal](#) and websites of the four-year schools. The Transfer Virginia Portal provides transparent and equitable information related to transfer, including course equivalencies, applicability of courses to degree programs, comparison of programs, transfer steps and resources, and college and career exploration.

### **DUAL ENROLLMENT ELIGIBILITY CRITERIA**

Dual enrollment (DE) courses are intended for high school juniors and seniors who have demonstrated their readiness to accept the challenge of taking college courses while still in high school. Because the enrollment of freshmen and sophomores is designated exceptional, each freshman or sophomore student will be considered on a case-by-case basis and will require formal approval by the college president as well as the appropriate academic division dean. Other conditions, as deemed by the president, may also apply. The specific criteria and steps required for approval, along with the [Request for Special Circumstance Dual Enrollment for Montgomery County Public Schools form](#) may be found in the appendix of this document.

In order to enroll in a DE course, high school students must have the permission of their parent/guardian to participate, be recommended by their high school principal, and meet all course prerequisites. Students must also [meet admission and course placement requirements established by NRCC](#). Requirements for admission include the completion of an application for admission to NRCC (students will be required to enroll as an NRCC student), transcripts, as well as

satisfaction of eligibility and placement criteria. NRCC may make exceptions to their policies regarding student eligibility on a case-by-case basis, if the high school principal and NRCC president approve and if such exceptions are in accordance with VCCS policy. NRCC reserves the right to advise students, parents, and MCPS that a student does not have sufficient skills or abilities to continue in any DE courses selected. Qualifying students will register for DE courses through their high school. All DE students must be registered by the end of the drop/add period established by NRCC for each course.

## DUAL ENROLLMENT PROGRAMS



While taking individual Dual Enrollment courses provides students with an opportunity to earn credits that may meet general education and/or degree requirements at a college or university, students may choose to complete a Passport or Uniform Certificate of General Studies (UCGS) program. Students also have an opportunity to earn an Associate Degree while still in high school. ***Students interested in pursuing any of these three programs listed below are strongly advised seek guidance from their school counselor and/or school-based NRCC Career Coach.***

- **Passport** - Successful completion of the Passport gives students confidence that 16 credits of coursework will transfer to Virginia's public and participating private institutions and satisfy 16 credits of general education requirements. The course bundle must be completed by selecting one course from the [Passport roster](#) in the following areas: written communications, humanities/fine arts, social/behavioral science, natural science, mathematics, and history. The key to the Passport is a balanced portfolio demonstrating your educational experience. All grades must be C or higher to transfer.
  - See the NRCC Career Coach located at your high school for help determining which DE courses offered at your school will apply to the Passport program.
- **Uniform Certificate of General Studies (UCGS)** – The UCGS program expands on the Passport to satisfy 31 credits of college-level general education requirements. Like the Passport, students can complete this 10-course bundle by selecting courses from the [UCGS roster](#) in written communications (2 courses), humanities/fine arts/literature (2 courses), history (1 course), social/behavioral science (1 course), natural science (1 course), and mathematics (1 course). Two additional courses are completed from the specialized general education block. All grades must be C or higher to transfer.
  - See the NRCC Career Coach located at your high school for help determining which DE courses offered at your school will apply to the UCGS program.
- **Associate Degree** – Earning an associate degree while in high school may allow students to complete a baccalaureate degree in less time than the traditional four-year degree can take. It may also offer opportunities for students to select a double major or it can free up time for students to explore study abroad or similar academic experiences. With a solid plan in place, students can save time and money. **The key is to complete a transfer associate degree that aligns with future academic plans so that coursework will apply to requirements for a bachelor's degree.** Consultation with both the two-year college and the receiving four-year colleges will support your creation of a successful plan by mapping out courses needed to complete a degree.
  - MCPS does not offer all courses required to fulfill an Associate Degree through Dual Enrollment courses. Students that intend to pursue this option will be required to take external courses either on-campus or online at NRCC. Prior to enrolling a student in an external course, parents should review [MCPS Policy 7-2.4](#) and discuss the requirements and expectations with the principal and/or school counselor.
  - See [NRCC's College Catalog](#) for a list of all transfer degree options.

Please reference the [Transfer Virginia Dual Enrollment Student Guide](#) for more information about the differences between Dual Enrollment and AP, student practices that promote success, terminology in exploring college options, and additional resources.

## MCPS DUAL ENROLLMENT POLICIES

Students in DE courses may be required to take a final exam regardless of any MCPS policies related to final exams. The requirement for students to take SOL tests related to DE courses still applies. Final grades in all DE courses are “weighted” in the calculation of a student’s high school GPA. At the conclusion of each college academic term, DE students will receive a college grade for each course in which he/she was registered, and such grade will become part of

the student's permanent college record. This record will be maintained by NRCC, and transcripts will be sent to colleges/universities upon a student's request.

At the present time, DE courses are made available to MCPS students at no cost to students when they are taught by MCPS teachers at an MCPS high school. Students who choose to take NRCC courses not offered by MCPS must pay tuition to the college.

**DE course offerings vary at the different MCPS high schools (see [pages 196-199](#) for a complete listing of DE courses offered by MCPS). Students interested in taking DE courses are encouraged to meet with the counselor at their high school to discuss dual enrollment options. As with all courses, DE course offerings are based on sufficient student interest/demand for the course and the availability of qualified staff. DE course offerings are also conditional upon adequate student registration by established deadlines and adequate enrollment as determined by NRCC and/or MCPS.**

## ADVANCED PLACEMENT COURSES

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The Advanced Placement Program® is designed for academically talented students who are not only college bound, but who are also motivated and capable of handling a college-level course while still in high school. Students should expect a rigorous and fast-paced academic program. Therefore, students need to be able to meet the demanding requirements in and out of class. Upon completion of the course, students are expected to take the Advanced Placement exam, which is given each year in May. Enrollment in the course does not mandate taking the tests; however, students should realize that the instruction is designed with AP tests in mind. Students who earn a qualifying score on an AP Exam are typically eligible to receive college credit and/or placement into advanced courses in college. Financial assistance is available to low-income students who wish to take the AP exam.

Each college or university make its own determination regarding what AP examination grades it will accept for credit. Although there is no guarantee that a college or university will award credit for AP courses, the majority of them will award students credit in the subject matter tested when a grade of 4 or better is achieved. In some cases, no credit is given, but the student begins the program of study at an advanced level. Students are strongly urged to acquaint themselves with the requirements of the college or university to which they intend to apply and to consult with an advisor at those institutions in order to determine what AP scores are considered accepted for credit.

**AP course offerings vary at the different MCPS high schools. Students interested in taking AP courses are encouraged to meet with the counselor at their high school to discuss AP options. As with all courses, AP course offerings are based on sufficient student interest/demand for the course and the availability of qualified staff.**

## SUMMER, VIRTUAL, & EXTERNAL COURSES

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MCPS high school students may elect to take Virtual Virginia, internal online courses, and/or external courses during or outside of regular school hours, and/or during the summer months. **Prior to enrolling a student in one of these courses, parents should review [MCPS Policy 7-2.4](#) and discuss the requirements and expectations with the principal and/or school counselor.** It is especially important to note the limitations on external courses and the limitations on the total number of high school credits that can be earned annually. All coursework taken in the summer is considered to be "external". **If a student wishes to take courses for high school credit in the summer following 8<sup>th</sup> grade, then prior approval from the high school they will attend is required.** Courses taken without prior approval will not be recognized by MCPS. Further information is provided on [pages 202-205](#).

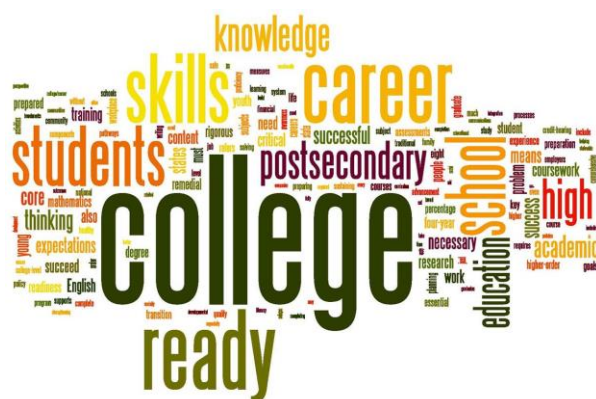
# MCPS VIRTUAL SCHOOL PROGRAM

Families who prefer to have their children educated in a remote learning environment for grades K-12 may enroll their children in the MCPS Virtual School Program. Students who participate in the MCPS Virtual School Program must enroll as a full-time MCPS student. These students will participate in the MCPS Virtual School program by enrolling in the Virtual Virginia Full-Time Program through the school within the attendance area in which the family resides.

Virtual Virginia courses are taught by Virtual Virginia staff, and student progress is monitored by MCPS staff. Virtual Virginia will report a course average (percentage grade), and the local school will convert the average to a letter grade based on the MCPS grading scale. The school is responsible for reporting course grades on school report cards in accordance with School Board policy. Students who are enroll in the MCPS Virtual School Program and meet all graduation requirements will receive a diploma from the MCPS high school in which they are enrolled.


Middle and high school students who are entering Montgomery County Public Schools from non-accredited schools or from homeschooling to enroll in the MCPS Virtual School Program may take courses appropriate to the student's age and grade level. High school students who are entering Montgomery County Public Schools from non-accredited schools or from home schooling may enroll in the MCPS Virtual School Program on a full-time basis with the intent to receive a diploma from the high school within the attendance area in which the family resides. These students must meet all requirements to be awarded credits toward graduation for courses completed in a non-accredited school or in home schooling in accordance with the process established in [Policy 7-2.4](#) (Assignment of Students to Classes/Alternative Credit). Course grades and credits will be recorded and included in a student's GPA calculation according to [Policy 7-2.4](#). Grade level placements will be determined by the number of credits earned in accordance with established Montgomery County School Board policy. Graduation requirements for these students will be the same as those for all Montgomery County students as stipulate by established Montgomery County School Board policy. Middle school students who are entering Montgomery County Public Schools from non-accredited schools or from home schooling to enroll in the MCPS Virtual School Program must meet the established promotion/placement criteria identified by Montgomery County School Board policy. Students will be placed in courses appropriate to the student's age and grade level. Any of these middle school students who have completed a high school credit course in a non-accredited school or in home schooling prior to enrolling in MCPS must follow the same process for awarding credits toward graduation established in [Policy 7-2.4](#) for high school students (Assignment of Students to Classes/Alternative Credit).

Students enrolled in the MCPS Virtual School Program will be permitted to participate in extracurricular activities at the school within the attendance area in which the family resides. Students who meet all VHSL eligibility requirements will be allowed to participate in athletics at the school. All MCPS School Board policies shall apply to students enrolled in the MCPS Virtual School Program.



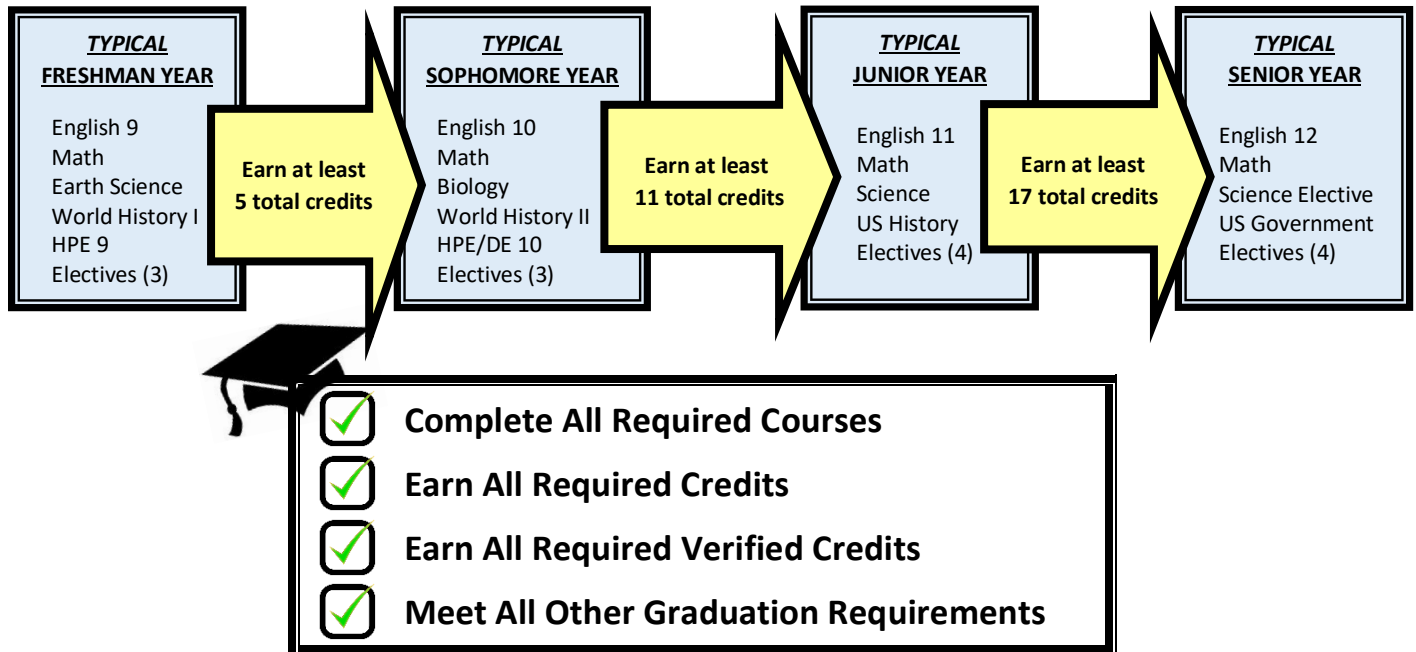
# KEY TO ICONS

The following icons appear beside certain courses throughout the Program of Studies:

	<b>Advanced Placement Program®</b>
	<b>Dual Enrollment</b>
	<b>Project Lead The Way</b>
	<b>National Automotive Technicians Education Foundation</b>
	<b>Rochester Institute of Technology</b>
	<b>MCPS Governor's STEM Academy</b>
	<b>Workplace Readiness</b>
	DE courses noted as a "Passport Transfer Course" <a href="#">Click Here for More Information</a>

# GRADUATION REQUIREMENTS

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## Definitions

For both a Standard Diploma and an Advanced Studies Diploma, the following definitions apply:

A "standard unit of credit" or "standard credit" is a credit awarded for a course in which the student successfully completes 140 clock hours of instruction and the requirements of the course. Local school boards may develop alternatives to, or waive, the requirement for 140 clock hours of instruction as provided for in the Virginia Standards of Accreditation and in accordance with board guidelines.

A "verified unit of credit" or "verified credit" is a credit awarded for a course in which a student earns a standard unit of credit and completes one of the following:

1. **Achieves a passing score on a corresponding end-of-course SOL test.** In accordance with the provisions of the Standards of Quality, students may earn a standard and verified unit of credit for any elective course in which the core academic Standards of Learning course content has been integrated and the student passes the related end-of-course SOL test. Such course and test combinations must be approved by the board. Upon waiver of the 140-clock-hour requirement according to board guidelines, qualified students who have received a standard unit of credit shall be permitted to sit for the relevant SOL test to earn a verified credit without having to meet the 140-clock-hour requirement.
2. Achieves a passing score on approved additional or substitute tests as a part of the **Virginia Assessment Program**.
3. Meets the criteria for the receipt of a **locally awarded verified credit** when the student has not passed a corresponding SOL test.
  - Students who do not pass SOL tests in English, mathematics, laboratory science, or history and social science may receive locally awarded verified credits from the local school board in accordance with criteria established in guidelines adopted by the board. **No more than one locally awarded verified credit may be used to satisfy graduation requirements, except as provided for students with disabilities seeking a standard diploma.**

4. Meets the criteria for the receipt of a verified credit in **English (writing)** by demonstrating mastery of the content of the associated course on an **authentic performance assessment** that complies with guidelines adopted by the board. Such students shall not also be required to take the corresponding SOL test in English (writing).
5. The board may from time to time approve additional tests for the purpose of awarding verified credit. Such additional tests, which enable students to earn verified units of credit, must meet established criteria.

## Diploma Types

- Both the **Standard Diploma** and the **Advanced Studies Diploma** provide multiple paths toward college, career, and citizenship readiness for students to follow in the later years of high school. Each such pathway provides meaningful and rigorous opportunities tied to instruction to achieve workplace and citizenship skills through experiences such as internships, externships, credentialing, and blended learning, which may be offered for credit toward high school graduation.
- In accordance with the Profile of a Virginia Graduate, the instructional program leading to a **Standard Diploma** or **Advanced Studies Diploma** ensures that students (i) attain the knowledge, skills, competencies, and experiences necessary to be successful in the evolving global economy whether immediately entering the world of work or pursuing a postsecondary education and (ii) acquire and be able to demonstrate foundational skills in critical thinking, creative thinking, collaboration, communication, and citizenship.

### Standard Diploma Credit Requirements

Discipline Area	Standard Units of Credit Required	Verified Credits Required
English (reading and writing)	4	2
Mathematics	3	1
Laboratory Science	3	1
History and Social Science	3	1
Health and Physical Education	2	
World Language, Fine Arts or Career and Technical Education	2	
Economics and Personal Finance	1	
Electives	4	
<b>Total</b>	<b>22</b>	<b>5</b>

### Specifications

- **Mathematics:** Courses completed to satisfy this requirement shall include **at least two different course selections** from among: Algebra I, Geometry, Algebra Functions, and Data Analysis (AFDA), Algebra II, or other mathematics courses approved by the board to satisfy this requirement.
  - A computer science course credit earned by students may be considered a mathematics course credit.
- **Laboratory Science:** Courses completed to satisfy this requirement shall include **course selection from at least two different science disciplines:** earth sciences, biology, chemistry, or physics.
  - A computer science course credit earned by students may be considered a science course credit.
  - A laboratory science verified credit may be awarded to students who complete a career and technical education program sequence **and**
    - (i) pass **two (2)** examinations or occupational competency assessments in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, trade, or professional association;



- (ii) acquire **two (2)** professional licenses in a career and technical education field from the Commonwealth of Virginia; or
- (iii) pass **one (1)** examination or competency assessment from clause (i) **and** acquire **one (1)** license from clause (ii).

The examination or occupational competency assessment must be approved by the board as an additional test to verify student achievement.

- **History and Social Science:** Courses completed to satisfy this requirement shall include Virginia and U.S. History, Virginia and U.S. Government, and **one (1) course** in either world history or geography or both.
- **World Language, Fine Arts or Career and Technical Education:** Credits earned for this requirement shall include **one (1)** credit in fine or performing arts **or** career and technical education.
  - A computer science course credit earned by students may be considered a career and technical course credit.
  - A fine arts or CTE course used to satisfy the World Language/Fine Arts/CTE graduation requirement for the Standard Diploma may be used to partially satisfy the sequential elective requirement (i.e. this course is permitted to count as one of the two required sequential elective course credits while also being used as one of the required Fine Arts/CTE course credits for the Standard Diploma.)
- **Electives:** Courses to satisfy this requirement shall include **at least two (2) sequential electives**.
  - A two-credit course may be used to fulfill this graduation requirement as long as the course is not specifically required for graduation. The content of the two-credit course must build on itself and create a foundation for further education or training or preparation for employment.

## Additional Graduation Requirements for Standard Diploma

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



## Advanced Studies Diploma Credit Requirements

Discipline Area	Standard Units of Credit Required	Verified Credits Required
English (reading and writing)	4	2
Mathematics	4	1
Laboratory Science	4	1
History and Social Science	4	1
World Language	3	
Health and Physical Education	2	
Fine Arts or Career and Technical Education	1	
Economics and Personal Finance	1	
Electives	3	
<b>Total</b>	<b>26</b>	<b>5</b>

## Specifications

- Mathematics:** 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.
  - A computer science course credit earned by students may be considered a mathematics course credit.
- Laboratory Science:** Courses completed to satisfy this requirement shall include **course selections from at least three (3) different science disciplines** from among: earth sciences, biology, chemistry, or physics. The board shall approve additional courses to satisfy this requirement.
  - A computer science course credit earned by students may be considered a science course credit.
- History and Social Science:** Courses completed to satisfy this requirement shall include Virginia and U.S. history, Virginia and U.S. government, **and two (2) courses** in either world history or geography or both. The board shall approve additional courses to satisfy this requirement.
- World Language:** Courses completed to satisfy this requirement shall include **three (3) years** of one language **or two (2) years** of two languages.
- Fine Arts or Career and Technical Education:** A computer science course credit earned by students may be considered a career and technical credit.
  - A fine arts or CTE course used to satisfy the World Language/Fine Arts/CTE graduation requirement for the Standard Diploma may be used to partially satisfy the sequential elective requirement (i.e. this course is permitted to count as one of the two required sequential elective course credits while also being used as one of the required Fine Arts/CTE course credits for the Advanced Studies Diploma.
- Electives:** Courses to satisfy this requirement shall include **at least two sequential electives**.
  - A two-credit course may be used to fulfill this graduation requirement as long as the course is not specifically required for graduation. The content of the two-credit course must build on itself and create a foundation for further education or training or preparation for employment.

## Additional Graduation Requirements for Advanced Studies Diploma

- Advanced Placement Course, Dual Enrollment Course, Honors Course, or Career and Technical Education Credential:** Students shall either
  - Complete an Advanced Placement, Dual Enrollment, or honors course, **or**
  - Complete a high-quality work-based learning experience, as defined by the Board, **or**
  - Earn a career and technical education credential approved by the board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does

not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the advanced studies diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, ASVAB, or the Virginia workplace readiness assessment.

- **Virtual Course:** Students shall successfully complete one virtual course, which may be a non-credit-bearing course or a required or elective credit-bearing course that is offered online.
- **Training in emergency first aid, cardiopulmonary resuscitation (CPR), and the use of automated external defibrillators (AED):** Students shall be trained in emergency first aid, CPR, and the use of AED, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation. Students with an IEP or 504 Plan that documents that they cannot successfully complete this training shall be granted a waiver from this graduation requirement.
- **Demonstration of the five Cs:** Students shall acquire and demonstrate foundational skills in critical thinking, creative thinking, collaboration, communication, and citizenship in accordance with the Profile of a Virginia Graduate.

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## Standard Diploma Credit Accommodations

Credit accommodations provide alternatives for students with disabilities in earning the standard and verified credits required to graduate with a Standard Diploma. The student's IEP or 504 Plan shall specify any credit accommodations applicable for the student. Such credit accommodations for students with disabilities may include:

- Approval of alternative courses to meet the standard credit requirements
- Modifications to the requirements for locally awarded verified credits
- Approval of additional tests to earn verified credits
- Adjusted cut scores on tests to earn verified credits
- Allowance of work-based learning experiences

## Applied Studies Diploma

A student with disabilities who completes the requirements of the student's IEP and does not meet the requirements for other diplomas shall be awarded an Applied Studies Diploma in accordance with state and federal laws and regulations regarding special education.

Students who pursue an Applied Studies Diploma shall be allowed to pursue a Standard Diploma or an Advanced Studies Diploma at any time during high school. Such students shall not be excluded from courses or tests required to earn these diplomas.

## Certificates of Program Completion

Students who complete prescribed programs of studies defined by the local school board but do not qualify for a Standard Diploma, an Advanced Studies Diploma, or an Applied Studies Diploma shall be awarded Certificates of Program Completion.



# Awards for Exemplary Student Performance (Diploma Seals)

MCPS provides awards for exemplary student performance per the Regulations Establishing the Standards for Accrediting Public Schools in Virginia. Students who demonstrate academic excellence and outstanding achievement may be eligible for one or more of the following diploma seals:

Virginia Diploma Seals	Criteria
<b>The Governor's Seal</b>	Awarded to students who complete the requirements for an Advanced Studies Diploma with an average grade of "B" or better and successfully complete college-level coursework that shall earn the student at least nine transferable college credits in Advanced Placement (AP), International Baccalaureate (IB), Cambridge, or dual enrollment courses.
<b>The Board of Education Seal</b>	Awarded to students who complete the requirements for a Standard Diploma or an Advanced Studies Diploma with an average grade of "A."
<b>The Board of Education's Career and Technical Education Seal</b>	Awarded to students who earn a Standard Diploma or an Advanced Studies Diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain a "B" or better average in those courses or (i) pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade, or professional association or (ii) acquire a professional license in that career and technical education field from the Commonwealth of Virginia. The board shall approve all professional licenses and examinations used to satisfy these requirements.
<b>The Board of Education's Science, Technology, Engineering, and Mathematics (STEM) Seal</b>	Awarded to students who earn either a Standard Diploma or an Advanced Studies Diploma and (i) satisfy all Math and Science requirements for the Advanced Studies diploma with a "B" average or better in all course work; and (ii) successfully complete a 50 hour or more work-based learning opportunity in a STEM area; and (iii) satisfy all requirements for a Career and Technical Education concentration (a concentration is a coherent sequence of two or more state-approved courses as identified in the course listing within the <a href="#">CTE Program Area Guide</a> ); and (iv) pass one of the following: (a) a Board of Education CTE STEM-H credential examination, or (b) an examination approved by the Board that confers a college-level credit in a STEM field.
<b>The Board of Education's Seal for Excellence in Civics Education</b>	Awarded to students who earn either a Standard Diploma or an Advanced Studies Diploma and (i) complete Virginia and United States history and Virginia and United States government courses with a grade of "B" or higher; (ii) have good attendance and no disciplinary infractions as determined by local school board policies; and (iii) complete 50 hours of voluntary participation in community service or extracurricular activities. Activities that satisfy the requirements of clause (iii) of this subdivision include (a) volunteering for a charitable or religious organization that provides services to the poor, sick, or less fortunate; (b) participating in Boy Scouts, Girl Scouts, or similar youth organizations; (c) participating in JROTC; (d) participating in political campaigns or government internships, or Boys State, Girls State, or Model General Assembly; or (e) participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation shall be deemed to have met this community service requirement.
<b>The Board of Education's Seal of Biliteracy</b>	Awarded to students who earn a Board of Education-approved diploma and (i) pass all required End-of-Course Assessments in English reading and writing at the proficient or higher level; and (ii) be proficient at the intermediate-mid level or higher in one or more languages other than English, as demonstrated through an assessment from a list to be approved by the Superintendent of Public Instruction. More information can be found on the <a href="#">Seal of Biliteracy webpage</a> , including the <a href="#">Evidence of Proficiency document</a> (DOCX), which provides a full list of assessment options for meeting the foreign language proficiency requirement.
<b>The Board of Education's Seal for Excellence in Science and the Environment</b>	Awarded to students who earn either a Standard Diploma or Advanced Studies Diploma and (i) complete at least three different first-level board-approved laboratory science courses and at least one rigorous advanced-level or postsecondary-level laboratory science course, each with a grade of "B" or higher; (ii) complete laboratory or field-science research and present that research in a formal, juried setting; and (iii) complete at least 50 hours of voluntary participation in community service or extracurricular activities that involve the application of science such as environmental monitoring, protection, management, or restoration.

MCPS Diploma Seals	Criteria
<b>The MCPS Governor's STEM Academy Seal</b>	Designed to promote student achievement and interest in STEM fields that are related to Advanced Manufacturing. Skill sets required for high demand STEM fields include Machining, Welding, Engineering, Robotics, and Information Technology. See <a href="#">pages 207-209</a> for the criteria to earn this diploma seal.
<b>The MCPS Work Ready Diploma Seal</b>	Designed to promote students gaining work-based learning experiences. The Work Ready Diploma Seal tells employers that a student has the necessary skills needed to be successful in a professional setting. A student who earns the Work Ready Diploma Seal has gained experience in a professional work environment. See <a href="#">page 210</a> for the criteria to earn this diploma seal.
<b>MCPS Fine Arts Diploma Seal</b>	Recognizes excellence in, and commitment to, the Fine Arts throughout each of the 4 years of high school. See <a href="#">page 211</a> for the criteria to earn this diploma seal.

## Other Recognitions of Academic Excellence

MCPS students are encouraged to reach their maximum potential in academic programs. Individual schools have developed their own methods for recognizing students who do outstanding academic work (e.g. honor rolls). All MCPS graduating seniors may be recognized for outstanding achievement in a variety of areas. These recognitions may include local, state, and national awards and scholarships earned, athletic accomplishments, leadership positions held, outstanding community service, exemplary character, and more. Each school and organization may establish their own set of criteria for awards and scholarships. School-based and community-based recognitions may include additional cords, stoles, sashes, or other adornments on the graduation regalia, as approved by the school principal.

### Recognition of Graduating Seniors (Based on GPA)

All MCPS graduating seniors who have attained the same levels of achievement based on established standards of academic excellence will be recognized as follows:

<b>Distinguished Scholar:</b>	GPA of 4.0 and Above
<b>Scholar:</b>	GPA of 3.80 - 3.99
<b>Honor Graduate:</b>	GPA of 3.60 - 3.79

**Grade point averages (GPAs)** are computed by using final grades for ninth, tenth, eleventh, and twelfth grade classes. Grades earned in high school credit courses taken prior to ninth grade also will be included in the computation of grade point averages. The method used by MCPS to calculate GPA can be found [MCPS Policy 6-6.3](#), Recognition of Student Academic Achievement.

All MCPS high schools will use the same criteria and distinctions to recognize graduates. However, individual high schools will determine how these students are identified (cords, stoles, sashes, medals, robes, etc.) and how a student or students will be selected to speak (selection committee, auditions, peer nominations, etc.) at the graduation ceremony. The designation of Valedictorian and Salutatorian, or other designations (e.g. Top 10, Top 10%) will not be utilized. MCPS also does not calculate a numerical class rank for students (See "Communication with Colleges and Universities" section in [MCPS Policy 6-6.3](#) for additional details).

### Honor Societies

MCPS high schools have two honor societies that recognize academic achievement by our students -- the National Beta Club and the National Honor Society. Each organization has established academic criteria that must be reached before a student may be eligible to be inducted into the club. Individual high schools may offer membership in other honor societies such as Tri-M Music Honor Society, National Art Honor Society, etc. Membership in these organizations may be signified by cords, stoles, sashes, or other adornments on the graduation regalia, as approved by the school principal.

# MONTGOMERY COUNTY PUBLIC SCHOOLS COMMON MATH PATHWAYS

Pathway 1	
Grade Level	Math Course
7	Algebra I H
8	Geometry H
9	Algebra II H
10	DE/AP Precalculus w/ Trig
11	Calculus *
12	2 <sup>nd</sup> Year Calculus Course * <u>OR</u> Elective Math Course **

The school determines all Math class placements through Algebra II

Pathway 2	
Grade Level	Math Course
8	Algebra I H
9	Geometry or Geometry H
10	Algebra II or Algebra II H
11	Adv Algebra with Trig <u>OR</u> DE/AP Precalculus w/ Trig
12	Calculus *

Pathway 3	
Grade Level	Math Course
8	Math 8
9	Algebra I
10	Geometry
11	Algebra II
12	Adv Algebra with Trig <u>OR</u> DE/AP Precalculus w/ Trig <u>OR</u> Elective Math Course **

The school determines all Math class placements through Algebra II

Pathway 4	
Grade Level	Math Course
8	Math 8
9	Algebra I
10	Geometry
11	AFDA *** / Algebra II
12	Adv Algebra with Trig <u>OR</u> DE/AP Precalculus w/ Trig <u>OR</u> Elective Math Course **

Pathway 5	
Grade Level	Math Course
8	Math 8
9	Algebra I
10	Geometry
11	AFDA ***
12	Algebra II <u>OR</u> Elective Math Course **

The school determines all Math class placements through Algebra II

Pathway 6	
Grade Level	Math Course
8	Math 8
9	Algebra Parts 1 & 2
10	Geometry or Parts 1 & 2
11	AFDA ***
12	Grade 12 Capstone Math <u>OR</u> Elective Math Course **

\* **Calculus Options Include:**  
(See [Course Descriptions](#) for how these courses are offered)

Calculus  
DE Applied Calculus I & DE Applied Calculus II  
DE/AP Calculus I (AB) & DE/AP Calculus II (BC)

\*\* **Elective Math Courses:**  
(See [Course Descriptions](#) for course prerequisites)

AP Computer Science Principles  
AP Computer Science A  
Probability & Statistics  
Data Science  
AP Statistics  
Grade 12 Math Capstone

\*\*\* **Algebra, Functions, and Data Analysis (AFDA)** also may be:

- Paired with Algebra I, Part 2 (after taking Algebra I, Part 1 with Supplemental Math)
- Taken immediately after Algebra I (if the Algebra I SOL test is failed)

## GUIDE TO 11th & 12th GRADE ENGLISH COURSES IN MCPS

COURSE NAME	MCPS COURSE	COURSE DESCRIPTION	NOTES
English 11	11500	<ul style="list-style-type: none"> <li>Addresses the Virginia Standards of Learning for English 11</li> </ul>	
AP English 11: <u>Language</u> & Composition	1196A	<ul style="list-style-type: none"> <li>Covers all topics from the AP <u>Language</u> &amp; Composition course</li> <li>Students will be prepared for the AP exam</li> <li>Addresses the Virginia Standards of Learning for English 11</li> </ul>	<p>Students can earn <b>ENG 111</b> credit with an AP score of 3 or higher on the English <u>Language</u> and Composition AP exam</p> <p>Students can earn <b>ENG 111 &amp; ENG 112</b> credit with an AP score of 4 or higher on the English <u>Language</u> and Composition AP exam</p>
DE/AP English 11: <u>Language</u> & Composition	DE1196A	<ul style="list-style-type: none"> <li>Aligned with NRCC's <b>ENG 111 &amp; ENG 112</b> (and includes SDV 100)</li> <li>Covers all topics from the AP <u>Language</u> &amp; Composition course</li> <li>Students will receive college credit from NRCC for <b>ENG 111 &amp; ENG 112</b> (and SDV 100) and will be prepared for the AP exam</li> <li>Addresses the Virginia Standards of Learning for English 11</li> </ul>	<p><b>ENG 111 &amp; ENG 112</b> are Passport Transfer courses</p> <p><b>ENG 112</b> is a prerequisite for all 200-level literature courses.</p>

If a student does not have a 4 or 5 on the AP English 11 exam or earned credit for **ENG 112** to transfer to a four-year college/university, that student may need to take **ENG 112** or the equivalent once they graduate high school and enter college.



COURSE NAME	MCPS COURSE	COURSE DESCRIPTION	NOTES
English 12	11600	<ul style="list-style-type: none"> <li>Addresses the Virginia Standards of Learning for English 12</li> </ul>	
AP English 12: <u>Literature</u> & Composition	1195A	<ul style="list-style-type: none"> <li>Covers all topics from the AP <u>Literature</u> &amp; Composition course</li> <li>Students will be prepared for the AP exam</li> <li>Addresses the Virginia Standards of Learning for English 12</li> </ul>	Students can earn <b>ENG 112</b> credit with an AP score of 4 or higher on the English <u>Literature</u> and Composition AP exam.
DE/AP English 12: <u>Literature</u> & Composition	DE1195A	<ul style="list-style-type: none"> <li>Aligned with NRCC's <b>ENG 245 &amp; ENG 225</b></li> <li>Covers all topics from the AP <u>Literature</u> &amp; Composition course</li> <li>Students will receive college credit from NRCC for <b>ENG 245 &amp; ENG 225</b> and be prepared for the AP exam</li> <li>Addresses the Virginia Standards of Learning for English 12</li> </ul>	<p><b>ENG 112</b> is a prerequisite for all 200-level literature courses.</p> <p><b>ENG 112 may be earned by:</b></p> <ul style="list-style-type: none"> <li>Taking DE English 11 <b>OR</b></li> <li>Taking AP English 11 and earning a score of 4 or higher on the AP Exam</li> </ul> <p><b>ENG 245 &amp; ENG 225</b> are Passport Transfer courses.</p>
DE English 12: College Composition	DE1600B	<ul style="list-style-type: none"> <li>Aligned with NRCC's <b>ENG 111 &amp; ENG 112</b> (and includes SDV 100)</li> <li>Students will receive college credit from NRCC for <b>ENG 111 &amp; ENG 112</b> (and SDV 100)</li> <li>Addresses the Virginia Standards of Learning for English 12</li> </ul>	This course is for 12th grade students who have <b>not</b> taken DE English 11.

**MONTGOMERY COUNTY PUBLIC SCHOOLS**  
**GUIDE TO HIGH SCHOOL SCIENCE COURSES IN MCPS**

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Laboratory Science Courses are required for both the Standard Diploma and the Advanced Studies Diploma. Specific requirements are as follows:

**Standard Diploma:** Students must earn 3 credits in Laboratory Sciences that includes course selection from at least 2 different science disciplines.

**Advanced Studies Diploma:** Students must earn 4 credits in Laboratory Sciences that includes course selections from at least 3 different science disciplines.

**Science Disciplines:**

Earth Sciences

Biology

Chemistry

Physics

Students must pass **ONE** science end-of-course SOL test to earn a verified credit in Science, as required for both diploma types.

COURSE NAME	MCPS COURSE	WHEN TO TAKE	NOTES
Earth Science	42100	This is the science course taken by MCPS students in <b>8<sup>th</sup> grade or 9<sup>th</sup> grade</b>	<ul style="list-style-type: none"> <li>Students will earn a high school credit for passing this course.</li> <li>All students will take the end-of-course SOL test for Earth Science at the completion of this course.</li> </ul>
Biology or Biology Honors	43100 4310H	This is the science course taken by MCPS students in <b>9<sup>th</sup> grade or 10<sup>th</sup> grade *</b>	All students will take the end-of-course SOL test for Biology at the completion of this course to meet federal requirements.
<ul style="list-style-type: none"> <li>All students must choose a <b>3<sup>rd</sup> Science</b> in 11<sup>th</sup> Grade (Required for both diploma types)</li> <li>Students pursuing an Advanced Studies Diploma must choose a <b>4<sup>th</sup> Science</b> in 12<sup>th</sup> Grade</li> <li>Students must meet course prerequisites for all courses listed below (See <a href="#">Course Descriptions</a>)</li> </ul>			
* Environmental Science	42700	This course <b>may be taken in 9<sup>th</sup> grade</b> prior to taking Biology or as an elective science in any grade. It may be used to satisfy the course selection requirement for an <b>Earth Sciences</b> or <b>Biology</b> discipline.	
Astronomy	42600	These courses are "Earth Science II" courses	
Meteorology	42200		
Oceanography	42500		
AP Environmental Science	4270A	<ul style="list-style-type: none"> <li>Covers all topics from the AP Environmental Science course.</li> <li>Students will be prepared for the AP exam</li> </ul>	
Anatomy/Physiology	43300	These courses are "Biology II" courses	
Bioethics	43202		
Botany/Zoology	43200		
Ecology	43400		
AP Biology	4370A	<ul style="list-style-type: none"> <li>Covers all topics from the AP Biology course</li> <li>Students will be prepared for the AP exam</li> </ul>	
DE/AP Biology	DE4700A	<ul style="list-style-type: none"> <li>Aligned with NRCC's General Biology I &amp; II</li> <li>Students receive 8 college credits from NRCC (BIO 101/102)</li> <li>Covers all topics from the AP Biology course</li> <li>Students will be prepared for the AP exam</li> </ul>	
DE Biotechnology	DE43201	<ul style="list-style-type: none"> <li>Aligned with NRCC's Biotechnology Concepts</li> <li>Students will receive 3 college credits from NRCC for BIO 253</li> </ul>	

DE Human Anatomy / Physiology	DE4330	<ul style="list-style-type: none"> <li>• Aligned with NRCC's Human Anatomy &amp; Physiology I &amp; II</li> <li>• Students will receive 8 college credits from NRCC for BIO 141 &amp; 142</li> </ul>
Chemistry I or Chemistry I H	44100 4410H	
Chemistry II	44200	
AP Chemistry	4470A	<ul style="list-style-type: none"> <li>• Covers all topics from the AP Chemistry course</li> <li>• Students will be prepared for the AP exam</li> </ul>
DE/AP Chemistry	DE4470A	<ul style="list-style-type: none"> <li>• Aligned with NRCC's General Chemistry I &amp; II</li> <li>• Covers all topics from the AP Chemistry course</li> <li>• Students will receive 8 college credits from NRCC for CHM 111 &amp; 112 and be prepared for the AP exam</li> </ul>
Physics I	45100	
Principles of Technology I and Principles of Technology II / Applied Physics	98110 98120	Students who complete both of these courses in the sequence will satisfy 1 lab science credit (Physics discipline) and 1 CTE elective credit. (98110 and 98120 are also a CTE completer sequence.)
AP Physics	4571A	<ul style="list-style-type: none"> <li>• Covers all topics from the AP Physics course</li> <li>• Students will be prepared for the AP exam</li> </ul>
DE/AP Physics	DE4571A	<ul style="list-style-type: none"> <li>• Aligned with NRCC's General College Physics I &amp; II</li> <li>• Covers all topics from the AP Physics course</li> <li>• Students will receive 8 college credits from NRCC for PHY 201 &amp; 202 and be prepared for the AP exam</li> </ul>
AP Computer Science A	3185A	<ul style="list-style-type: none"> <li>• This course can be used as a science credit but may <b>NOT</b> be used to meet the <b>discipline</b> requirements for standard and advanced studies diplomas.</li> </ul>
External Opportunities	4703V DE4701V DE4702V	<p><b>See the MCPS High School Program of Studies for information reading the following courses:</b></p> <ul style="list-style-type: none"> <li>• Virginia Space Coast Scholars (VSCS) <b>VIRTUAL</b></li> <li>• Virginia Aerospace Science &amp; Technology Scholars Program (VASTS) <b>VIRTUAL</b></li> <li>• Virginia Earth System Science Scholars Program (VESSS) <b>VIRTUAL</b></li> </ul>

## MONTGOMERY COUNTY PUBLIC SCHOOLS

### GUIDE TO HIGH SCHOOL HISTORY & SOCIAL SCIENCE COURSES IN MCPS

**History & Social Science Courses are required for both the Standard Diploma and the Advanced Studies Diploma. Specific requirements are as follows:**

**Standard Diploma:** Students must earn 3 credits in History & Social Sciences that includes Virginia and U.S. History, Virginia and U.S. Government, and **ONE (1) course** in either World History or Geography or both.

**Advanced Studies Diploma:** Students must earn 4 credits in History & Social Sciences that includes Virginia and U.S. History, Virginia and U.S. Government, and **TWO (2) courses** in either World History or Geography or both.

**Students must earn ONE verified credit in History & Social Sciences,\*  
as required for both diploma types.**

COURSE NAME	MCPS COURSE	WHEN TO TAKE	NOTES
<b>World History &amp; Geography I or World History &amp; Geography I Honors</b>	<b>22150 2215H</b>	This is the History & Social Sciences course taken by all MCPS students in <b>9<sup>th</sup> grade</b>	All students will take the end-of-course SOL test for World History & Geography to 1500 AD at the completion of this course.*
Students pursuing the <b>Advanced Studies Diploma</b> will select <b>one</b> of the following courses to meet diploma requirements: <ul style="list-style-type: none"> <li><b>World History &amp; Geography II</b></li> <li><b>AP European History</b></li> <li><b>AP World History: Modern</b></li> <li><b>DE/AP Human Geography</b></li> </ul>	<b>22160 2399A 23801A DE2212A</b>	These are the History & Social Sciences courses from which MCPS students must select in <b>10<sup>th</sup> grade</b> if they are pursuing an Advanced Studies Diploma	Only students who did NOT PASS the end-of-course performance assessments (PA) for World History & Geography to 1500 AD will take the end-of-course PA for World History & Geography to 1500 to present at the completion of any one of these courses.
Students will select <b>one</b> of the following courses to meet diploma requirements: <ul style="list-style-type: none"> <li><b>Virginia &amp; US History</b></li> <li><b>AP US History</b></li> <li><b>DE/AP US History</b></li> </ul>	<b>23600 2319A DE2319A</b>	These are the History & Social Sciences courses from which all MCPS students must select in <b>11<sup>th</sup> grade</b>	Only students who did NOT PASS an end-of-course SOL test in a World History & Geography course will take the end-of-course SOL test for Virginia & US History at the completion of any one of these courses.
Students in 11 <sup>th</sup> Grade also may choose to take <b>AP European History, AP World History: Modern, or DE/AP Human Geography</b> as an elective <b>in addition to</b> one of the US History courses above.			
Students will select <b>one</b> of the following courses to meet diploma requirements: <ul style="list-style-type: none"> <li><b>Virginia &amp; US Government</b></li> <li><b>AP Government &amp; Politics: US</b></li> <li><b>DE/AP Government &amp; Politics: US</b></li> </ul>	<b>24400 2445A DE245A</b>	These are the History & Social Sciences courses from which all MCPS students must select in <b>12<sup>th</sup> grade</b>	There is no end-of-course SOL test in Virginia & US Government
<p>* <b>All students in World History I</b> will complete a series of performance-based assessments throughout the course for inclusion in their course portfolio that will be evaluated, along with other assignments, to award a Verified Credit in history &amp; social sciences. Determination of a verified credit will be made by averaging the (3) scored performance assessments, with equal consideration of the students' performance on the standards NOT targeted in the performance assessments. <b>Students who did not earn a verified credit in World History I</b> will be given the opportunity to complete performance-based assessments in World History II or VA/US History to earn a Verified Credit in history &amp; social sciences.</p>			
Students in 12th Grade also may choose to take <b>AP European History, AP World History: Modern, or DE/AP Human Geography</b> as an elective <b>in addition to</b> one of US Government courses above.			

## GUIDE TO 11th & 12th GRADE HISTORY & SOCIAL SCIENCE COURSES IN MCPS

COURSE NAME	MCPS COURSE	COURSE DESCRIPTION	NOTES
Virginia & US History	23600	<ul style="list-style-type: none"> <li>Addresses the Virginia Standards of Learning for <b>Virginia &amp; US History</b></li> </ul>	
AP US History	2319A	<ul style="list-style-type: none"> <li>Covers all topics from the AP US History course</li> <li>Students will be prepared for the AP exam</li> <li>Addresses the Virginia Standards of Learning for <b>Virginia &amp; US History</b></li> </ul>	Students can earn <b>HIS 121 &amp; HIS 122</b> credit with an AP score of 3 or higher on the US History AP exam
DE/AP US History	DE2319A	<ul style="list-style-type: none"> <li>Aligned with NRCC's US History to 1877 and US History Since 1865</li> <li>Covers all topics from the AP US History course</li> <li>Students will receive college credit from NRCC for HIS 121 &amp; HIS 122 and will be prepared for the AP exam</li> <li>Addresses the Virginia Standards of Learning for <b>Virginia &amp; US History</b></li> </ul>	<b>HIS 121 &amp; HIS 122</b> are Passport Transfer courses
COURSE NAME	MCPS COURSE	COURSE DESCRIPTION	NOTES
Virginia & US Government	24400	<ul style="list-style-type: none"> <li>Addresses the Virginia Standards of Learning for <b>Virginia &amp; US Government</b></li> </ul>	
AP Government & Politics: US	2445A	<ul style="list-style-type: none"> <li>Covers all topics from the AP Government &amp; Politics: US course</li> <li>Students will be prepared for the AP exam</li> <li>Addresses the Virginia Standards of Learning for <b>Virginia &amp; US Government</b></li> </ul>	Students can earn <b>PLS 135</b> credit with an AP score of 3 or higher on the Government & Politics: US AP exam
DE/AP Government & Politics: US	DE245A	<ul style="list-style-type: none"> <li>Aligned with NRCC's NRCC's US Government &amp; Politics and State &amp; Local Politics</li> <li>Covers all topics from the AP Government &amp; Politics: US course</li> <li>Students will receive college credit from NRCC for PLS 135 &amp; PLS 136 and will be prepared for the AP exam</li> <li>Addresses the Virginia Standards of Learning for <b>Virginia &amp; US Government</b></li> </ul>	<b>PLS 135 &amp; 136</b> are Passport Transfer courses

## HISTORY & SOCIAL SCIENCE ELECTIVE COURSES IN MCPS

MCPS also offers a variety of History & Social Sciences elective courses.

Students are encouraged to take the elective courses that are of interest to them.

Students must meet course prerequisites for all courses listed below (See [Course Descriptions](#))

COURSE NAME	MCPS COURSE	COURSE NAME	MCPS COURSE
Psychology	29000	Appalachian Studies	29970
AP Psychology	2902A	Women's Studies	29980
DE/AP Psychology	DE2900A	African American History	29990
Psychology /Sociology	29960	AP African American Studies	2999A
DE Psychology /Sociology VIRTUAL	DE2996V	DE Contemporary World Religions	DE2999

# GRADE 9 COURSE SELECTIONS

All incoming 9<sup>th</sup> grade students will have the opportunity to earn 8 credits during their freshman year of high school. There are 5 required courses and 3 elective courses that students select.

## REQUIRED COURSES

### ENGLISH:

- Students will select [English 9 or English 9 Honors](#) (English 9 Honors requires 8<sup>th</sup> grade English teacher recommendation)
- To address the needs of students who have struggled to meet SOL Reading and Writing Test requirements, MCPS provides needs-based, high school English classes to prepare students for success. Students are assigned to these classes based on SOL test scores and performance on a screening assessment. Parents will be informed if their student has met the placement criteria.

### SCIENCE:

- Students who successfully completed Earth Science in middle school should select [Biology I or Biology I Honors](#) (Biology I Honors requires 8<sup>th</sup> grade science teacher recommendation). **Students who did not pass Earth Science in 8<sup>th</sup> Grade** can either **repeat [Earth Science](#) OR take [Environmental Science](#)** if additional content knowledge and science skills are needed prior to retaking Earth Science or taking Biology (recommended).

### HISTORY / SOCIAL SCIENCE:

- Students will select [World History I or World History I Honors](#) (World History I Honors requires 8<sup>th</sup> grade history teacher recommendation)

### [MATH:](#)

- MCPS provides a comprehensive mathematics program to promote the achievement of every student. A key component of our program is ensuring that all secondary students are placed in mathematics courses that deliver an appropriate level of challenge. All MCPS high schools collect and analyze multiple pieces of student data in order to make placement decisions, including grades, test scores, and teacher recommendations. Parents will be informed of mathematics placement decisions for the coming school year prior to the end of the current school year.
- **Students who have successfully completed Algebra II may register for [elective Mathematics courses](#).**

### HEALTH & PHYSICAL EDUCATION:

- Students will select [HPE 9 or HPE 9/Strength & Conditioning](#)

## ELECTIVE COURSES (See [Graduation Requirements](#))

- [WORLD LANGUAGES](#) - Required for Advanced Studies Diploma
- [ENGLISH, HISTORY/SOCIAL SCIENCE, MATH, & SCIENCE](#) ELECTIVES
- [FINE ARTS](#)
- [CAREER & TECHNICAL EDUCATION](#)
- [OTHER](#)



ENGLISH 9			MCPS Course Code	11300	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	English	SOL Test(s) Required		
Grade Level	9	Prerequisite(s)	None						
<b>Course Description:</b> In this course, students will apply knowledge of literary terms and forms to their reading and writing and to analyses of literature and other printed materials. They will be introduced to literary works from a variety of cultures and eras. Students will continue to develop their reading comprehension skills through utilizing strategies to identify formats, text structures, and main ideas. Students will write narrative, literary, expository, and informational forms. They will develop as writers by participating in a process for writing, including prewriting, organizing, composing, revising, editing, and publishing.									
<b>NOTE:</b> Beginning in the 2021-22 school year, all students in English 9/9H will submit a persuasive paper for inclusion in their High School Writing Portfolio which will be evaluated along with assigned papers in English 10 and English 11 to award a Verified Credit in Writing.									
ENGLISH 9 HONORS		1130H	This course incorporates the English 9 curriculum and is designed for students who have displayed excellence in previous English courses and are eager to put forth the time and effort to meet the demands of a more rigorous and accelerated course.						
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

WORLD HISTORY & GEOGRAPHY TO 1500 AD			MCPS Course Code	22150	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	History / Social Sciences		SOL Test(s) Required	
Grade Level	9	Prerequisite(s)	None						
<b>Course Description:</b> This course provides students with a study of world geography and world history from the earliest civilization to the end of the 15 <sup>th</sup> Century. Emphasis will be placed on physical geography, geography skills, and the influences of geography on the development, continuity, and change of civilizations and cultures. Physical geography will include the study of the five themes of geography as well as developing analytical skills in interpreting maps, photographs, graphs, charts. The origin of Western Civilization and the impact of early non-western civilizations from ancient times through the Renaissance are central themes of the course.									
<b>NOTE:</b> Beginning in the 2022-23 school year, all students in World History I/World History I(H) will complete two performance-based assessments for inclusion in their course portfolio that will be evaluated, along with other assignments, to award a Verified Credit in social studies. ( <i>VDOE contingencies may necessitate the continued use of the traditional Standards of Learning end-of-course examination.</i> )									
WORLD HISTORY & GEOGRAPHY TO 1500 AD HONORS		2215H	This course incorporates the World History & Geography to 1500 AD curriculum and is designed for students who have displayed excellence in previous history/social sciences courses and are eager to put forth the time and effort to meet the demands of a more rigorous and accelerated course.						
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ALGEBRA I			MCPS Course Code	31300	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Math		SOL Test(s) Required	
Grade Level		9-10	Prerequisite(s)						
<b>Course Description:</b> This course extends students' knowledge and understanding of the real number system and its properties through the study of variables, expressions, equations, inequalities, and analysis of data derived from real-world phenomena. Use of a graphing calculator is considered essential to provide a graphical and numerical approach to topics in addition to a symbolic approach. Topics include linear equations and inequalities, systems of linear equations, relations, functions, polynomials, and statistics.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

GEOMETRY			MCPS Course Code	31430	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Math		SOL Test(s) Required	
Grade Level		9-11	Prerequisite(s)	Algebra I					
<b>Course Description:</b> This course emphasizes two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. Course content includes properties of geometric figures, trigonometric relationships, and reasoning to justify conclusions. Methods of justification include paragraph proofs, two-column proofs, indirect proofs, coordinate proofs, algebraic methods, and verbal arguments. A variety of applications and general problem-solving techniques, including algebraic skills, will be used. Graphing calculators will be used to assist in teaching and learning.									
GEOMETRY HONORS		3143H	This course extends the Geometry curriculum and includes additional opportunities for application and problem solving. It is designed for students who have demonstrated success in previous mathematics courses and are eager to meet the demands of a more rigorous and accelerated course.						
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ALGEBRA, FUNCTIONS, & DATA ANALYSIS (AFDA)			MCPS Course Code	31340	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Math		SOL Test(s) Required	
Grade Level		9-12	Prerequisite(s)	Algebra I					
<b>Course Description:</b> This course is designed for students who have successfully completed the standards for Algebra I. Within the context of mathematical modeling and data analysis, students will study functions and their behaviors, systems of inequalities, probability, experimental design and implementation, and analysis of data. Data will be generated by practical applications arising from science, business, and finance. Students will solve problems that require the formulation of linear, quadratic, exponential, or logarithmic equations or a system of equations. <b>A course sequence of Algebra I, Geometry, and AFDA satisfies the math requirements of the Standard diploma; a course sequence of Algebra I, Geometry, AFDA, and Algebra II satisfies the math requirements of the Advanced Studies Diploma.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ALGEBRA II			MCPS Course Code	31350	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Math		SOL Test(s) Required	✓
Grade Level		9-12	Prerequisite(s)	Algebra I & Geometry					
Course Description: This course provides a thorough treatment of algebraic concepts through the study of functions, polynomials, rational expressions, complex numbers, exponential and logarithmic equations, arithmetic and geometric sequences and series, and data analysis. Emphasis is placed on the mechanics of algebra with real world applications and modeling. A transformational approach to graphing is used with families of functions. Numerical, graphical, and algebraic representations and solutions will be emphasized. Graphing utilities, especially graphing calculators, are integral to the course.									
ALGEBRA II HONORS		3135H	This course extends the Algebra II curriculum and includes additional opportunities for application and problem solving. It is designed for students who have demonstrated success in previous mathematics courses and are eager to meet the demands of a more rigorous and accelerated course.						
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

EARTH SCIENCE			MCPS Course Code	42100	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Earth Science		SOL Test(s) Required	✓
Grade Level	9-10	Prerequisite(s)							
Course Description: This course is designed to give the student an understanding of the earth, its processes, history and place in the universe. Major emphasis is on geology, meteorology, oceanography and astronomy. Man’s influence on his environment, locally and worldwide, is stressed.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ENVIRONMENTAL SCIENCE			MCPS Course Code	42700	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Science (Earth Science or Biology)		SOL Test(s) Required	
Grade Level	9	Prerequisite(s)							
<b>Course Description:</b> This course integrates the study of many components of our environment, including the human impact on our planet. These outcomes focus on scientific inquiry, the physical world, the living environment, resource conservation, humans’ impact on the environment, and legal and civic responsibility. Students will focus on data collection and analysis through laboratory experiences and field work that include descriptive and comparative studies as well as investigation (i.e. meaningful watershed educational experiences). Students will be provided with opportunities to engage the community, as well as be exposed to diverse points of view about the management of natural resources, and a variety of learning experiences and career education opportunities.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

BIOLOGY I			MCPS Course Code	43100	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Science (Biology)		SOL Test(s) Required	
Grade Level		9-10	Prerequisite(s)						
Course Description: This course presents an overview of the diversity of life and the interrelationship of all organisms. Major emphasis is on cytology, genetics, microbiology, botany, zoology, and ecology. The student should develop an appreciation of the living world, an understanding of biological bases of problems that exist in the world and an understanding of man’s place in nature.									
BIOLOGY HONORS		4310H	This course incorporates the Biology I curriculum and is designed for students who have displayed excellence in previous science courses and are eager to put forth the time and effort to meet the demands of a more rigorous and accelerated course.						
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

HEALTH & PHYSICAL EDUCATION 9			MCPS Course Code	73000	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	HPE		SOL Test(s) Required	
Grade Level	9	Prerequisite(s)	None						
Course Description: Physical education emphasizes personal fitness, individual and team games/sports, and lifetime activity. The physical education program contributes to the overall mental, emotional, social, and physical growth of each student. The classroom component of HPE 9 consists of Health units that include stress management, personal health, first aid skills for bleeding, contusions, fractures, and anaphylactic shock, adult and child cardiopulmonary resuscitation (CPR), use of automated external defibrillator (AED), safety, drug education, family life, and diseases.									
HEALTH & PHYSICAL EDUCATION 9 / STRENGTH & CONDITIONING		73001	Same as 73000 except with emphasis on Strength and Conditioning.						
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

# GRADE 10 COURSE SELECTIONS

All 10<sup>th</sup> grade students will have the opportunity to earn 8 credits during their sophomore year of high school. There are 4-5 required courses and 3-4 elective courses that students select, as determined by the diploma type they are seeking.

## REQUIRED COURSES

### ENGLISH:

- Students will select [English 10 or English 10 Honors](#) (English 10 Honors requires English 9 teacher recommendation)
- To address the needs of students who have struggled to meet SOL Reading and Writing Test requirements, MCPS provides needs-based, high school English classes to prepare students for success. Students are assigned to these classes based on SOL test scores and performance on a screening assessment. Parents will be informed if their student has met the placement criteria.

### SCIENCE:

- Students who have successfully completed two high school credit courses, should select a [third science course](#)

### HISTORY / SOCIAL SCIENCE:

- **World History II is the recommended 10<sup>th</sup> grade History Course for students pursuing the Advanced Studies Diploma.** Students will select [World History II, AP European History, or AP World History: Modern or DE/AP Human Geography](#) (AP courses require previous history teacher recommendation)

### [MATH:](#)

- MCPS provides a comprehensive mathematics program to promote the achievement of every student. A key component of our program is ensuring that all secondary students are placed in mathematics courses that deliver an appropriate level of challenge. All MCPS high schools collect and analyze multiple pieces of student data in order to make placement decisions, including grades, test scores, and teacher recommendations. Parents will be informed of mathematics placement decisions for the coming school year prior to the end of the current school year.
- Students who have successfully completed Algebra II may register for [elective Mathematics courses](#)

### HEALTH & PHYSICAL EDUCATION:

- Students will select [HPE 10 or HPE 10/Strength & Conditioning](#) (Driver's Education is part of HPE 10)


## ELECTIVE COURSES (See [Graduation Requirements](#))

- [WORLD LANGUAGES](#) - Required for Advanced Studies Diploma
- [ENGLISH, HISTORY/SOCIAL SCIENCE, MATH, & SCIENCE](#) ELECTIVES
- [FINE ARTS](#)
- [CAREER & TECHNICAL EDUCATION](#)
- [OTHER](#)




ENGLISH 10			MCPS Course Code	11400	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	English		SOL Test(s) Required	
Grade Level		10	Prerequisite(s)		English 9				
<p><b>Course Description:</b> In this course, students will read, comprehend, critique, and analyze a variety of literary works. They will interpret a variety of informational materials and apply critical reading skills across the content areas. Students will develop their expository writing skills and learn effective techniques of organization and development. Students will apply the writing process in developing written products and will edit writing for correct use of language, sentence formation, punctuation, capitalization and spelling.</p> <p><b>NOTE:</b> Beginning in the 2022-23 school year, all students in <b>English 10/10H</b> will submit an analytic paper (with research alignment) for inclusion in their High School Writing Portfolio which will be evaluated along with assigned papers in English 9 and English 11 to award a Verified Credit in Writing.</p>									
ENGLISH 10 HONORS		1140H	This course incorporates the English 10 curriculum and is designed for students who have displayed excellence in previous English courses and are eager to put forth the time and effort to meet the demands of a more rigorous and accelerated course.						
AHS	•	English 10H at AHS may be paired with AP Euro in a “shared block” that meets daily for the full school year. In this scheduling format, students who take English 10H must also take AP Euro.							
BHS	•								
CHS	•	English 10H at CHS may be paired with AP Euro in a “shared block” that meets daily for the full school year. In this scheduling format, students who take English 10H must also take AP Euro.							
EMHS	•								

WORLD HISTORY & GEOGRAPHY 1500 TO PRESENT			MCPS Course Code	22160	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	History / Social Sciences		SOL Test(s) Required	✓
Grade Level		10	Prerequisite(s)	World History & Geography to 1500 AD					
<p><b>Course Description:</b> This course provides students with an examination of the historical themes which led to the establishment of vast empires by various European powers since the period of the Renaissance. The impact of European expansion into the Americas, Africa, and Asia during the 15<sup>th</sup> through the 19<sup>th</sup> centuries will be analyzed. Students will describe the political, economic, and social changes that developed in Europe during this same period. Students will gain an understanding of the impact of technology, especially analyzing the effects of the Industrial Revolution. This will lead to students explaining the development of twentieth century imperialism and nationalism, the rise of totalitarianism and the impact of World War I and II. The course concludes by focusing upon themes that have emerged during the post-world war era. Students will describe political developments in Europe and the United States in the second half of the 20<sup>th</sup> century. Political, economic, social, and physical geography will be incorporated throughout the course, allowing student to demonstrate skills in geographical analysis.</p> <p><b>NOTE:</b> All World History II students who must earn a verified credit for social studies will complete performance-based assessments in their course portfolio that will be evaluated, along with other assignments, to earn a Verified Credit in social studies. (<i>VDOE contingencies may necessitate the continued use of the traditional SOL end-of-course examination.</i>)</p>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

AP EUROPEAN HISTORY			AP	MCPS Course Code	2399A	High School Credits	1	Graduation Requirement	
						Weighted	✓		
						Credit Type	History / Social Sciences	SOL Test(s) Required	✓
Grade Level	10-12	Prerequisite(s)	World History & Geography to 1500 AD. Students should be able to read a college-level textbook and write grammatically correct, complete sentences.						
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP European History course. The course is designed to be the equivalent of a two-semester introductory college or university European history course. In AP European History students investigate significant events, individuals, developments, and processes in four historical periods from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical comparisons; and utilizing reasoning about contextualization, causation, and continuity and change over time. The course also provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world; poverty and prosperity; objective knowledge and subjective visions; states and other institutions of power; individual and society; and national and European identity. This course covers the history of Europe from 1450 to the present. The political, military, economic, geographic, cultural, and social factors that underpin the modern political order are examined in depth. Students will develop critical thinking skills through analysis and interpretation of primary and secondary sources. Research and writing skills will be emphasized, as will technique for mastery of document-based questions.									
<b>NOTE:</b> All AP European History students who must earn a verified credit for social studies will complete performance-based assessments for inclusion in their course portfolio that will be evaluated, along with other assignments, to earn a Verified Credit in social studies. ( <i>VDOE contingencies may necessitate the continued use of the traditional SOL end-of-course examination.</i> )									
AHS	•	This course may be paired with English 10 Honors in a “shared block” that meets for the full school year at AHS. In this scheduling format, students who take AP Euro must also take English 10H.							
BHS	•								
CHS	•	This course may be paired with English 10 Honors in a “shared block” that meets for the full school year at CHS. In this scheduling format, students who take AP Euro must also take English 10H.							
EMHS	•								

AP WORLD HISTORY: MODERN				MCPS Course Code	23801A	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	History / Social Sciences		SOL Test(s) Required
Grade Level	10-12	Prerequisite(s)	World History & Geography to 1500 AD. Students should be able to read a college-level textbook and write grammatically correct, complete sentences.						
<p><b>Course Description:</b> Students investigate significant events, individuals, developments, and processes from 1200 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation.</p> <p><b>NOTE:</b> All AP World History: Modern students who must earn a verified credit for social studies will complete performance-based assessments for inclusion in their course portfolio that will be evaluated, along with other assignments, to earn a Verified Credit in social studies. (<i>VDOE contingencies may necessitate the continued use of the traditional SOL end-of-course examination.</i>)</p>									
AHS									
BHS	•								
CHS									
EMHS									



DE/AP HUMAN GEOGRAPHY				MCPS Course Code	DE2212A	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type	History / Social Sciences		SOL Test(s) Required	
Dual Enrolled	✓			NRCC Course Code(s)	GEO 210 & GEO 220	College Credits		6		
Grade Level		10-12	Prerequisite(s)		World History & Geography to 1500 AD. Students should be able to read a college-level textbook and write grammatically correct, complete sentences.					
<b>Course Description:</b> The content of this college-level course contains seven units of study as outlined in the 2019 Course and Exam Description (CED) published by the College Board. The units in the CED focus on topics including thinking geographically, population and migration, culture, political geography, agriculture, urban geography, and development and industrialization. Students will have multiple opportunities to apply the information addressed in each unit in activities including note-taking, current events, projects, and formative and summative assessments. The goal for the course is for students to become more geoliterate, more engaged in contemporary global issues, and more informed about multicultural viewpoints.										
<b>NOTE:</b> All DE/AP Human Geography students who must earn a verified credit for social studies will complete performance-based assessments for inclusion in their course portfolio that will be evaluated, along with other assignments, to earn a Verified Credit in social studies. ( <i>VDOE contingencies may necessitate the continued use of the traditional SOL end-of-course examination.</i> )										
AHS										
BHS	•	This course is offered only as AP Human Geography (2212A) at BHS at this time.								
CHS	•									
EMHS										
There are <b>not</b> two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC.										
DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.										

ALGEBRA I			MCPS Course Code	31300	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Math		SOL Test(s) Required	✓
Grade Level		9-10	Prerequisite(s)						
<b>Course Description:</b> This course extends students' knowledge and understanding of the real number system and its properties through the study of variables, expressions, equations, inequalities, and analysis of data derived from real-world phenomena. Use of a graphing calculator is considered essential to provide a graphical and numerical approach to topics in addition to a symbolic approach. Topics include linear equations and inequalities, systems of linear equations, relations, functions, polynomials, and statistics.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

GEOMETRY			MCPS Course Code	31430	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Math		SOL Test(s) Required	✓
Grade Level		9-11	Prerequisite(s)	Algebra I					
<b>Course Description:</b> This course emphasizes two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. Course content includes properties of geometric figures, trigonometric relationships, and reasoning to justify conclusions. Methods of justification include paragraph proofs, two-column proofs, indirect proofs, coordinate proofs, algebraic methods, and verbal arguments. A variety of applications and general problem-solving techniques, including algebraic skills, will be used. Graphing calculators will be used to assist in teaching and learning.									
GEOMETRY HONORS		3143H	This course extends the Geometry curriculum and includes additional opportunities for application and problem solving. It is designed for students who have demonstrated success in previous mathematics courses and are eager to meet the demands of a more rigorous and accelerated course.						
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ALGEBRA, FUNCTIONS, & DATA ANALYSIS (AFDA)			MCPS Course Code	31340	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Math		SOL Test(s) Required	
Grade Level		9-12	Prerequisite(s)	Algebra I					
<b>Course Description:</b> This course is designed for students who have successfully completed the standards for Algebra I. Within the context of mathematical modeling and data analysis, students will study functions and their behaviors, systems of inequalities, probability, experimental design and implementation, and analysis of data. Data will be generated by practical applications arising from science, business, and finance. Students will solve problems that require the formulation of linear, quadratic, exponential, or logarithmic equations or a system of equations. <b>A course sequence of Algebra I, Geometry, and AFDA satisfies the math requirements of the Standard diploma; a course sequence of Algebra I, Geometry, AFDA, and Algebra II satisfies the math requirements of the Advanced Studies Diploma.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

BIOLOGY I			MCPS Course Code	43100	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Science (Biology)		SOL Test(s) Required	
Grade Level		9-10	Prerequisite(s)						
Course Description: This course presents an overview of the diversity of life and the interrelationship of all organisms. Major emphasis is on cytology, genetics, microbiology, botany, zoology, and ecology. The student should develop an appreciation of the living world, an understanding of biological bases of problems that exist in the world and an understanding of man’s place in nature.									
BIOLOGY HONORS		4310H	This course incorporates the Biology I curriculum and is designed for students who have displayed excellence in previous science courses and are eager to put forth the time and effort to meet the demands of a more rigorous and accelerated course.						
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ALGEBRA II			MCPS Course Code	31350	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Math		SOL Test(s) Required	
Grade Level		9-12	Prerequisite(s)	Algebra I & Geometry					
Course Description: This course provides a thorough treatment of algebraic concepts through the study of functions, polynomials, rational expressions, complex numbers, exponential and logarithmic equations, arithmetic and geometric sequences and series, and data analysis. Emphasis is placed on the mechanics of algebra with real world applications and modeling. A transformational approach to graphing is used with families of functions. Numerical, graphical, and algebraic representations and solutions will be emphasized. Graphing utilities, especially graphing calculators, are integral to the course.									
ALGEBRA II HONORS		3135H	This course extends the Algebra II curriculum and includes additional opportunities for application and problem solving. It is designed for students who have demonstrated success in previous mathematics courses and are eager to meet the demands of a more rigorous and accelerated course.						
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

HEALTH & PHYSICAL EDUCATION 10 WITH DRIVER'S EDUCATION			MCPS Course Code	74050	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	HPE		SOL Test(s) Required	
DRIVER'S ED CLASSROOM				70150	High School Credits		0		
Grade Level		10	Prerequisite(s)	HPE 9					
<b>Course Description:</b> Physical education emphasizes personal fitness, individual and team games/sports, and lifetime activity. The physical education program contributes to the overall mental, emotional, social, and physical growth of each student. The classroom component of HPE 10 consists of driver education and Health units that include family life education, mental health, consumer health, and personal injury prevention. Driver's Education meets the required hours of instruction established by the state of Virginia.									
HEALTH & PHYSICAL EDUCATION 10 WITH DRIVER'S EDUCATION / STRENGTH & CONDITIONING		74051	Same as 74050 except with emphasis on Strength and Conditioning.						
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

# GRADE 11 COURSE SELECTIONS

All 11<sup>th</sup> grade students will have the opportunity to earn 8 credits during their junior year of high school. There are 3-4 required courses and 4-5 elective courses that students select, as determined by the diploma type they are seeking.

## REQUIRED COURSES

### ENGLISH:

- Students will select [English 11, AP English 11 or DE/AP English 11](#)
- To address the needs of students who have struggled to meet SOL Reading and Writing Test requirements, MCPS provides needs-based, high school English classes to prepare students for success. Students are assigned to these classes based on SOL test scores and performance on a screening assessment. Parents will be informed if their student has met the placement criteria.

### SCIENCE:

- Students should select a [third or fourth science course](#), as required by the diploma type they are seeking

### HISTORY / SOCIAL SCIENCE

- Students will select [VA/US History, AP US History or DE/AP US History](#) (AP US History requires previous history teacher recommendation)
- Students may also elect to take [AP European History, AP World History: Modern or DE/AP Human Geography](#) if not previously taken (AP courses require history teacher recommendation)

### MATH:




- MCPS provides a comprehensive mathematics program to promote the achievement of every student. A key component of our program is ensuring that all secondary students are placed in mathematics courses that deliver an appropriate level of challenge. All MCPS high schools collect and analyze multiple pieces of student data in order to make placement decisions, including grades, test scores, and teacher recommendations. Parents will be informed of mathematics placement decisions for the coming school year prior to the end of the current school year.
- Students who have successfully completed Algebra II may register for [elective Mathematics courses](#)

## ELECTIVE COURSES (See [Graduation Requirements](#))


- [WORLD LANGUAGES](#) - Required for Advanced Studies Diploma
- [ENGLISH, HISTORY/SOCIAL SCIENCE, MATH, & SCIENCE](#) ELECTIVES
- [FINE ARTS](#)
- [CAREER & TECHNICAL EDUCATION](#)
- [OTHER](#)

ENGLISH 11			MCPS Course Code	11500	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	English		SOL Test(s) Required	
Grade Level		11	Prerequisite(s)	English 10					
<b>Course Description:</b> In this course, students will enhance their appreciation for literature by studying American literature, both classic and contemporary. They will read a variety of literary genres and informational texts to identify the prevalent themes in American literature that are reflective of American history and culture. Students will write in a variety of forms with an emphasis on persuasive essays and professional correspondence. Additionally, students will engage in research that requires the selection, evaluation, use, and documentation of a variety of sources. Each student will present a research product that is clearly written and accurately documented.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								




AP ENGLISH 11 LANGUAGE & COMPOSITION			AP	MCPS Course Code	1196A	High School Credits		1	Graduation Requirement	✓
						Weighted		✓		
						Credit Type	English		SOL Test(s) Required	
Grade Level	11	Prerequisite(s)	English 10 and the ability to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing							
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP English Language and Composition course. The course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods. This intensive writing course explores the themes of American literature and literary techniques of persuasive speeches and essays. One of the benchmarks of the course is the researched argumentative paper. This course prepares students for the Advanced Placement English Language and Composition exam which focuses on rhetorical analysis and argumentative writing.										
AHS	•	Also may be offered as DE/AP English 11 Language & Composition (based on the availability of qualified staff at each high school who have the necessary credentials to teach dual-enrolled English).								
BHS	•									
CHS	•									
EMHS	•									

DE/AP ENGLISH 11 LANGUAGE & COMPOSITION				MCPS Course Code	DE1196A	High School Credits	1	Graduation Requirement	✓
						Weighted	✓		
						Credit Type	English	SOL Test(s) Required	✓
Dual Enrolled	✓		NRCC Course Code(s)	ENG 111 & ENG 112	College Credits	6			
Grade Level	11	Prerequisite(s)	English 10 *						
<b>Course Description:</b> See course description for AP English 11 Language & Composition (1196A).									
<p>This course is also based on NRCC syllabi for College Composition I and II. To meet NRCC requirements, the <b>ENG 111</b> portion of the course introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts, teaches the use of print and digital technologies to promote inquiry, and requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. The <b>ENG 112</b> portion of the course further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. <b>DE English 11 also addresses the Virginia Standards of Learning for English 11. Students must complete the ENG 111 portion of this course with a C or better in order to advance to the ENG 112 portion of this course.</b></p> <p>Included in this course will be NRCC's College Success Skills (SDV 100) which is required for students to receive a degree from NRCC. This one-credit course assists students in transition to colleges. Provides overviews of college policies, procedures, curricular offerings. Encourages contacts with other students and staff. Assists students toward college success through information regarding effective study habits, career and academic planning, and other college resources available to students. Students who satisfactorily complete this course will receive 1 college credit from NRCC for SDV 100.</p>									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.									
AHS	•	<b>Also may be offered as AP English 11 Language &amp; Composition</b> (based on the availability of qualified staff at each high school who have the necessary credentials to teach dual-enrolled English).							
BHS	•								
CHS	•								
EMHS	•								
<p>There are <b>not</b> two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC. This course may carry with it a fee to NRCC.</p> <p>DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.</p>									


VIRGINIA & U.S. HISTORY			MCPS Course Code	23600	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	History / Social Sciences		SOL Test(s) Required	✓
Grade Level	11	Prerequisite(s)							
<b>Course Description:</b> This course includes a study of the development of American ideals and institutions through the major events, eras, and personalities of U.S. history from the age of discovery through the modern era. The course provides a perspective on the relationship between the past and contemporary issues. Virginia’s history is emphasized from the colonial period through the Civil War period. This course further develops and refines the previously learned writing and thinking skills in interpreting charts, graphs, and maps. Other skills emphasized are developing and understanding of events as a part of a chronological sequence; developing problem-solving and critical thinking skills; organizing, analyzing, interpreting, and synthesizing information.									
<b>NOTE:</b> All students in VA/US History who must earn a verified credit for social studies will complete performance-based assessments for inclusion in their course portfolio that will be evaluated, along with other assignments, to earn a Verified Credit in social studies. (VDOE contingencies may necessitate the continued use of the traditional SOL end-of-course examination.)									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								




AP U.S. HISTORY				MCPS Course Code	2319A	High School Credits		1	Graduation Requirement	✓
						Weighted		✓		
						Credit Type	History / Social Sciences		SOL Test(s) Required	
Grade Level	11	Prerequisite(s)	Students should be able to read a college-level textbook and write grammatically correct, complete sentences.							
<p><b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP U.S. History course. The course is designed to be the equivalent of a two-semester introductory college or university U.S. history course. In AP U.S. History students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical comparisons; and utilizing reasoning about contextualization, causation, and continuity and change over time. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society. This course presents an in depth study of United States history from the colonial era to the present. It covers the various themes of American history, such as political, economic, social, military, international, and religious factors. Texts, assignments, readings, and tests are on the university level. Students at the end of the year may opt to take a national comprehensive examination which will be used by colleges for credits, admissions, and entrance into honors programs. Students should meet the demanding requirements of regular and lengthy assignments, individual discipline, library and writing skills, as well as having the ability to analyze and interpret primary and secondary sources.</p>										
<p><b>NOTE:</b> All students in AP US History who must earn a verified credit for social studies will complete performance-based assessments for inclusion in their course portfolio that will be evaluated, along with other assignments, to earn a Verified Credit in social studies. (<i>VDOE contingencies may necessitate the continued use of the traditional SOL end-of-course examination.</i>)</p>										
AHS	•	Also may be offered as DE/AP US History (based on the availability of qualified staff at each high school who have the necessary credentials to teach dual-enrolled History).								
BHS	•									
CHS	•									
EMHS	•									



DE/AP U.S. HISTORY				MCPS Course Code	DE2319A	High School Credits		1	Graduation Requirement	✓
						Weighted		✓		
						Credit Type	History / Social Sciences		SOL Test(s) Required	
Dual Enrolled	✓		NRCC Course Code(s)	HIS 121 & HIS 122	College Credits		6			
Grade Level		11	Prerequisite(s)		See Below *					
<b>Course Description:</b> See course description for AP U.S. History (2319A).										
<p>This course is also based on NRCC syllabi for United States History to 1877 and United States History Since 1865. To meet NRCC requirements, the <b>HIS 121</b> portion of the course introduces the history of the United States from its origins to 1877, and includes the European exploration, development of the American colonies and their institutions, the Revolution, major political, social and economic developments, geographical expansion, the Civil War, and Reconstruction. The <b>HIS 122</b> portion of the course introduces the history of the United States from 1865 to present, and includes major political, social and economic developments since 1865, overseas expansion, the two world wars, the Cold War and the post-Cold War era. <b>DE U.S. History also addresses the Virginia Standards of Learning for Virginia &amp; U.S. History. Students must complete the HIS 121 portion of this course with a D or better in order to advance to the HIS 122 portion of this course.</b></p>										
<p><b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b></p> <p>This course may carry with it a fee to NRCC.</p>										
<p><b>NOTE:</b> All students in DE/AP US History who must earn a verified credit for social studies will complete performance-based assessments for inclusion in their course portfolio that will be evaluated, along with other assignments, to earn a Verified Credit in social studies. (<i>VDOE contingencies may necessitate the continued use of the traditional SOL end-of-course examination.</i>)</p>										
AHS	•	<b>Also may be offered as AP US History</b> (based on the availability of qualified staff at each high school who have the necessary credentials to teach dual-enrolled History).								
BHS	•									
CHS	•									
EMHS	•									
<p>There are <b>not</b> two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC. <b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b></p> <p>This course may carry with it a fee to NRCC.</p>										
<p>DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.</p>										

AP EUROPEAN HISTORY			AP	MCPS Course Code	2399A	High School Credits	1	Graduation Requirement	
						Weighted	✓		
						Credit Type	History / Social Sciences	SOL Test(s) Required	✓
Grade Level	10-12	Prerequisite(s)	World History & Geography to 1500 AD. Students should be able to read a college-level textbook and write grammatically correct, complete sentences.						
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP European History course. The course is designed to be the equivalent of a two-semester introductory college or university European history course. In AP European History students investigate significant events, individuals, developments, and processes in four historical periods from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical comparisons; and utilizing reasoning about contextualization, causation, and continuity and change over time. The course also provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world; poverty and prosperity; objective knowledge and subjective visions; states and other institutions of power; individual and society; and national and European identity. This course covers the history of Europe from 1450 to the present. The political, military, economic, geographic, cultural, and social factors that underpin the modern political order are examined in depth. Students will develop critical thinking skills through analysis and interpretation of primary and secondary sources. Research and writing skills will be emphasized, as will technique for mastery of document-based questions.									
<b>NOTE:</b> All AP European History students who must earn a verified credit for social studies will complete performance-based assessments for inclusion in their course portfolio that will be evaluated, along with other assignments, to earn a Verified Credit in social studies. ( <i>VDOE contingencies may necessitate the continued use of the traditional SOL end-of-course examination.</i> )									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

AP WORLD HISTORY: MODERN				MCPS Course Code	23801A	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	History / Social Sciences		SOL Test(s) Required
Grade Level	10-12	Prerequisite(s)	World History & Geography to 1500 AD. Students should be able to read a college-level textbook and write grammatically correct, complete sentences.						
<p><b>Course Description:</b> Students investigate significant events, individuals, developments, and processes from 1200 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation.</p> <p><b>NOTE:</b> All AP World History: Modern students who must earn a verified credit for social studies will complete performance-based assessments for inclusion in their course portfolio that will be evaluated, along with other assignments, to earn a Verified Credit in social studies. (<i>VDOE contingencies may necessitate the continued use of the traditional SOL end-of-course examination.</i>)</p>									
AHS									
BHS	•								
CHS									
EMHS									

DE/AP HUMAN GEOGRAPHY 			MCPS Course Code	DE2212A	High School Credits		1	Graduation Requirement		
					Weighted		✓			
					Credit Type	History / Social Sciences			SOL Test(s) Required	
Dual Enrolled	✓		NRCC Course Code(s)	GEO 210 & GEO 220	College Credits		6			
Grade Level		10-12	Prerequisite(s)	World History & Geography to 1500 AD. Students should be able to read a college-level textbook and write grammatically correct, complete sentences. *						

**Course Description:** The content of this college-level course contains seven units of study as outlined in the 2019 Course and Exam Description (CED) published by the College Board. The units in the CED focus on topics including thinking geographically, population and migration, culture, political geography, agriculture, urban geography, and development and industrialization. Students will have multiple opportunities to apply the information addressed in each unit in activities including note-taking, current events, projects, and formative and summative assessments. The goal for the course is for students to become more geoliterate, more engaged in contemporary global issues, and more informed about multicultural viewpoints.

**NOTE:** All DE/AP Human Geography students who must earn a verified credit for social studies will complete performance-based assessments for inclusion in their course portfolio that will be evaluated, along with other assignments, to earn a Verified Credit in social studies. (*VDOE contingencies may necessitate the continued use of the traditional SOL end-of-course examination.*)

AHS		
BHS	•	This course is offered only as AP Human Geography (2212A) at BHS at this time.
CHS	•	
EMHS		

There are **not** two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC. \* **In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see [pages 9-11](#) and [194-196](#)) in addition to successful completion of prerequisite courses.** This course may carry with it a fee to NRCC.

DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.

GEOMETRY			MCPS Course Code	31430	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type		Math		SOL Test(s) Required
Grade Level		9-11	Prerequisite(s)	Algebra I					
<b>Course Description:</b> This course emphasizes two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. Course content includes properties of geometric figures, trigonometric relationships, and reasoning to justify conclusions. Methods of justification include paragraph proofs, two-column proofs, indirect proofs, coordinate proofs, algebraic methods, and verbal arguments. A variety of applications and general problem-solving techniques, including algebraic skills, will be used. Graphing calculators will be used to assist in teaching and learning.									
GEOMETRY HONORS		3143H	This course extends the Geometry curriculum and includes additional opportunities for application and problem solving. It is designed for students who have demonstrated success in previous mathematics courses and are eager to meet the demands of a more rigorous and accelerated course.						
AHS	•	The honors-level course is not offered at AHS.							
BHS	•								
CHS	•								
EMHS	•								

ALGEBRA, FUNCTIONS, & DATA ANALYSIS (AFDA)			MCPS Course Code	31340	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Math		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	Algebra I						
<b>Course Description:</b> This course is designed for students who have successfully completed the standards for Algebra I. Within the context of mathematical modeling and data analysis, students will study functions and their behaviors, systems of inequalities, probability, experimental design and implementation, and analysis of data. Data will be generated by practical applications arising from science, business, and finance. Students will solve problems that require the formulation of linear, quadratic, exponential, or logarithmic equations or a system of equations. <b>A course sequence of Algebra I, Geometry, and AFDA satisfies the math requirements of the Standard diploma; a course sequence of Algebra I, Geometry, AFDA, and Algebra II satisfies the math requirements of the Advanced Studies Diploma.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ALGEBRA II			MCPS Course Code	31350	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Math	SOL Test(s) Required		✓
Grade Level		9-12	Prerequisite(s)	Algebra I & Geometry					
Course Description: This course provides a thorough treatment of algebraic concepts through the study of functions, polynomials, rational expressions, complex numbers, exponential and logarithmic equations, arithmetic and geometric sequences and series, and data analysis. Emphasis is placed on the mechanics of algebra with real world applications and modeling. A transformational approach to graphing is used with families of functions. Numerical, graphical, and algebraic representations and solutions will be emphasized. Graphing utilities, especially graphing calculators, are integral to the course.									
ALGEBRA II HONORS		3135H	This course extends the Algebra II curriculum and includes additional opportunities for application and problem solving. It is designed for students who have demonstrated success in previous mathematics courses and are eager to meet the demands of a more rigorous and accelerated course.						
AHS	•								
BHS	•								
CHS	•								
EMHS	•	The honors-level course is not offered at EMHS.							

# GRADE 12 COURSE SELECTIONS

All 12<sup>th</sup> grade students will have the opportunity to earn 8 credits during their senior year of high school. There are 2-4 required courses and 4-6 elective courses that students select, as determined by the diploma type they are seeking.

## REQUIRED COURSES

### ENGLISH:

- Students will select [English 12, AP English 12, DE/AP English 12 or DE English 12](#)
- To address the needs of students who have struggled to meet SOL Reading and Writing Test requirements, MCPS provides needs-based, high school English classes to prepare students for success. Students are assigned to these classes based on SOL test scores and performance on a screening assessment. Parents will be informed if their student has met the placement criteria.

### SCIENCE:

- Students should select a [third or fourth science course](#), as required by the diploma type they are seeking

### HISTORY / SOCIAL SCIENCE:

- Students will select [VA & US Government, AP Government & Politics: United States or DE/AP Government & Politics: United States](#)


### MATH:



- MCPS provides a comprehensive mathematics program to promote the achievement of every student. A key component of our program is ensuring that all secondary students are placed in mathematics courses that deliver an appropriate level of challenge. All MCPS high schools collect and analyze multiple pieces of student data in order to make placement decisions, including grades, test scores, and teacher recommendations. Parents will be informed of mathematics placement decisions for the coming school year prior to the end of the current school year.
- Students who have successfully completed Algebra II may register for [elective Mathematics courses](#)

## ELECTIVE COURSES (See [Graduation Requirements](#))



- [WORLD LANGUAGES](#) - Required for Advanced Studies Diploma
- [ENGLISH](#), [HISTORY/SOCIAL SCIENCE](#), [MATH](#), & [SCIENCE](#) ELECTIVES
- [FINE ARTS](#)
- [CAREER & TECHNICAL EDUCATION](#)
- [OTHER](#)

ENGLISH 12			MCPS Course Code	11600	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	English		SOL Test(s) Required	
Grade Level	12	Prerequisite(s)	English 11						
<b>Course Description:</b> In this course, students will analyze British literature and literature of other cultures. In addition, students will read informational and technical texts and continue to develop their own reading-process skills. Students will apply these reading skills in other content areas. Students will produce informational and expository papers that are logically organized and contain clear and accurate ideas. They will produce well-documented research papers, using a standard method of documentation. Students will also develop communication and collaborative skills necessary for both college and the professional workplace.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								


AP ENGLISH 12 LITERATURE & COMPOSITION				MCPS Course Code	1195A	High School Credits		1	Graduation Requirement	✓
						Weighted		✓		
						Credit Type	English	SOL Test(s) Required		
Grade Level	12	Prerequisite(s)	English 11 and the ability to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing							
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP English Literature and Composition course. The course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. This course prepares students for the Advanced Placement English Literature and Composition exam, which concentrates on the genres of poetry, novels, and drama. The course will emphasize British literature. Students will be expected to think critically, to synthesize literature, and to write effectively. Students are expected to do many timed-writing experiences and to develop extended persuasive as well as analytical essays and documented papers.										
AHS	•	<b>Also may be offered as DE/AP English 12 Literature &amp; Composition</b> (based on the availability of qualified staff at each high school who have the necessary credentials to teach dual-enrolled English).								
BHS	•									
CHS	•									
EMHS	•									



DE ENGLISH 12 COLLEGE COMPOSITION			MCPS Course Code	DE1600B	High School Credits		1	Graduation Requirement	✓
					Weighted		✓		
					Credit Type	English		SOL Test(s) Required	
Dual Enrolled	✓		NRCC Course Code(s)	ENG 111 & ENG 112	College Credits		6		
Grade Level		12	Prerequisite(s)	English 11 *					
<p><b>Course Description:</b> This course is based on NRCC syllabi for College Composition I and II. To meet NRCC requirements, the <b>ENG 111</b> portion of the course introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts, teaches the use of print and digital technologies to promote inquiry, and requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. The <b>ENG 112</b> portion of the course further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. <b>DE English 12 also addresses the Virginia Standards of Learning for English 12. Students must complete the ENG 111 portion of this course with a C or better in order to advance to the ENG 112 portion of this course.</b></p> <p>Included in this course will be NRCC's College Success Skills (SDV 100) which is required for students to receive a degree from NRCC. This one-credit course assists students in transition to colleges. Provides overviews of college policies, procedures, curricular offerings. Encourages contacts with other students and staff. Assists students toward college success through information regarding effective study habits, career and academic planning, and other college resources available to students. Students who satisfactorily complete this course will receive 1 college credit from NRCC for SDV 100.</p> <p><b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b></p>									
AHS		<b>THIS COURSE IS ONLY FOR SENIORS WHO DID NOT TAKE DE ENGLISH 11</b>							
BHS	•								
CHS	•								
EMHS									



DE/AP ENGLISH 12 LITERATURE & COMPOSITION			AP	MCPS Course Code	DE1195A	High School Credits	1	Graduation Requirement	✓
						Weighted	✓		
						Credit Type	English	SOL Test(s) Required	
Dual Enrolled	✓		NRCC Course Code(s)	ENG 245 & ENG 225	College Credits		6		
Grade Level	12	Prerequisite(s)	DE English 11 or AP English 11 with a score of 4 or higher on the AP Exam *						
<b>Course Description:</b> See course description for AP English 12 Literature & Composition (1195A).									
<p>This course is also based on NRCC syllabi for ENG 245 (British Literature) and ENG 225 (Reading Literature: Culture and Ideas). To meet NRCC requirements, the <b>ENG 245</b> portion of the course examines British literary traditions and texts from diverse time periods, genres, and authors, as well as develops critical thinking and interpretive skills through close reading, discussion, and analysis of literary texts in their historical, cultural, social, and/or literary contexts. The <b>ENG 225</b> portion of the course examines a set of literary texts linked by a particular theme, with inquiry into the historical, cultural, and/or social contexts of the texts and the theme, as well as emphasizes interpretive and critical analysis skills developed through close reading and intertextual study, as well as highlights an exploration of cultural ideas. Engages works of diverse genres, authors, and time periods. Specific themes will vary by section. <b>DE English 12 also addresses the Virginia Standards of Learning for English 12.</b></p>									
<p><b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC. This course may carry with it a fee to NRCC.</p>									
<p>Included in this course will be NRCC’s College Success Skills (SDV 100) which is required for students to receive a degree from NRCC for which students will receive 1 college credit from NRCC.</p>									
AHS	•	<b>Also may be offered as AP English 12 Literature &amp; Composition</b> (based on the availability of qualified staff at each high school who have the necessary credentials to teach dual-enrolled English).							
BHS	•								
CHS	•								
EMHS	•								
<p>There are <u>not</u> two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC. <b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.</p>									
<p>DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.</p>									

VIRGINIA & U.S. GOVERNMENT			MCPS Course Code	24400	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	History / Social Sciences		SOL Test(s) Required	
Grade Level	12	Prerequisite(s)							
<b>Course Description:</b> This course that examines the basic structure of the different levels of government, national, state and local. It provides an in-depth study of the U.S. Constitution and its amendments, as well as a thorough study of the foundations and principles upon which democratic government rests. The branches of government and the powers inherent to each are thoroughly examined, as well as current events and their worldwide effects. Included is a study of the Virginia Constitution and local governing bodies. Characteristics of the U.S. economic system are explored. Importance is placed on the practical application of political theory and special emphasis is given to basic democratic values, the importance of citizen participation in the democratic process, and the understanding of social, political, economic issues and current events. Students are encouraged to participate in the political life of their community, by registering to vote and voting, by attending political and/or public meetings and by writing letters or speaking in public forums. Community service will also be strongly encouraged.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

AP GOVERNMENT & POLITICS: UNITED STATES				MCPS Course Code	2445A	High School Credits		1	Graduation Requirement	✓
						Weighted		✓		
						Credit Type		History / Social Sciences		SOL Test(s) Required
Grade Level	12	Prerequisite(s)	Students should be able to read a college-level textbook and write grammatically correct, complete sentences.							
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP United States Government and Politics course. The course introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning assess causes and consequences of political events, and interpret data to develop evidence-based arguments. The course is a critical study, in survey fashion, of government and politics in the United States. The use of primary sources is integrally incorporated in the course of study. Students should expect an in-depth analysis of the American political system.										
AHS	•	<b>Also may be offered as DE/AP Government &amp; Politics: United States</b> (based on the availability of qualified staff at each high school who have the necessary credentials to teach dual-enrolled Government).								
BHS	•									
CHS	•									
EMHS	•									

DE/AP GOVERNMENT & POLITICS: UNITED STATES			AP	MCPS Course Code	DE2445A	High School Credits	1	Graduation Requirement	✓
						Weighted	✓		
						Credit Type	History / Social Sciences	SOL Test(s) Required	
Dual Enrolled	✓		NRCC Course Code(s)	PLS 135 & PLS 136	College Credits	6			
Grade Level	12	Prerequisite(s)	See Below *						

**Course Description:** See course description for AP Government & Politics: United States (2445A).


This course also is based on NRCC syllabi for U.S. Government & Politics and State & Local Politics. To meet NRCC requirements, the PLS 135 portion of the course teaches the political structure, processes, institutions, and policymaking of the US national government, focuses on the three branches of government, their interrelationships, and how they shape policy, and addresses federalism; civil liberties and civil rights; political socialization and participation; public opinion, the media; interest groups; political parties; elections; and policymaking. The PLS 136 portion of the course teaches structure, powers, and functions of state and local government in the United States as related to federalism; constitutionalism; elections; powers of legislative, executive, and judicial powers of state and local government; state-local-federal relations; fiscal matters; metropolitan issues; and policy issues, like health, education, criminal justice and welfare. The assignments in the course require college-level reading fluency and coherent communication through written reports. **DE U.S. Government also addresses the Virginia Standards of Learning for Virginia & U.S. Government. Students must complete the PLS 135 portion of this course with a D or better in order to advance to the PLS 136 portion of this course.**

**\* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see [pages 9-11](#) and [194-196](#)) in addition to successful completion of prerequisite courses.** This course may carry with it a fee to NRCC.

AHS	•	<b>Also may be offered as AP Government &amp; Politics: United States</b> (based on the availability of qualified staff at each high school who have the necessary credentials to teach dual-enrolled Government).
BHS	•	
CHS	•	
EMHS	•	

There are **not** two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC. **\* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see [pages 9-11](#) and [194-196](#)) in addition to successful completion of prerequisite courses.** This course may carry with it a fee to NRCC.

DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.

AP GOVERNMENT & POLITICS: COMPARATIVE				MCPS Course Code	2450A	High School Credits		1	Graduation Requirement	✓
						Weighted		✓		
						Credit Type		History / Social Sciences		SOL Test(s) Required
Grade Level	12	Prerequisite(s)								
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Comparative Government and Politics course. The course introduces students to the rich diversity of political life outside the United States. The course uses a comparative approach to examine the political structures; policies; and the political, economic, and social challenges among six selected countries: Great Britain, Mexico, Russia, Iran, China, and Nigeria. Additionally, students examine how different governments solve similar problems by comparing the effectiveness of approaches to many global issues. The course focuses on specific representative countries (comparative systems) so that the student obtains an understanding of the diversity of world political structures and politics.										
AHS		<b>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</b>								
BHS										
CHS										
EMHS										

# WORLD LANGUAGES

ASL I: AMERICAN SIGN LANGUAGE			MCPS Course Code	59900	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)							
<p><b>Course Description:</b> This course introduces students to the history of American Sign Language (ASL) and the Deaf Community in the U.S. and beyond. It promotes an awareness of deaf culture as well as development of the language. Students have an opportunity to succeed in a hands-on, visual-based language. Students begin the sequential development of ASL communication skills and develop ASL receptive (“listening”) skills and expressive (“talking”) signing skills to understand and communicate basic information about themselves and others. Students do classroom presentations in ASL.</p> <p><b>This offering is in keeping with the Virginia State Board of Education’s recognition of ASL as a foreign language for high school graduation. However, this course may not satisfy foreign language requirements at some colleges and universities. Virginia colleges/universities that accept ASL as a foreign language include Virginia Tech, University of Virginia, Radford University and more. See ASL instructor for list of nation-wide colleges/universities that accept ASL for foreign language admissions credit.</b></p>									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								

ASL II: AMERICAN SIGN LANGUAGE			MCPS Course Code	59950	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	C average or better in ASL I						
<b>Course Description:</b> This course reinforces and expands communication skills and broadens student knowledge of Deaf culture. American Sign Language II builds upon topics, vocabulary, and grammar introduced in ASL I. Students work on interpretation and expressive communication skills in ASL and do various types of classroom presentations. Students are encouraged to communicate about people in a more abstract way and to describe in more detail their school environment. Students continue to learn appropriate cultural behaviors and the history of the U.S. deaf community.									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								

ASL III: AMERICAN SIGN LANGUAGE			MCPS Course Code	59970	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	10-12	Prerequisite(s)	C average or better in ASL II						
<b>Course Description:</b> This course reinforces and expands communication skills and student knowledge of Deaf culture. Students increase their understanding of the language through a variety of literary genres including ASL story-telling and poetry. Students also increase their understanding of the language and culture through the reading of a wide variety of articles, short stories, novels and professional literature. Students continue to develop their language usage skills, both receptively and expressively and are expected to work independently on translations. Students present the translations to the teacher or the class.									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								

ASL IV: AMERICAN SIGN LANGUAGE			MCPS Course Code	59980	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	11-12	Prerequisite(s)	C average or better in ASL III						
<b>Course Description:</b> This course emphasizes correct grammatical and syntactical use and analysis of language. It continues to build on the topics, vocabulary, grammar, and cultural issues developed throughout ASL course sequence. Sign Language IV students may have the opportunity to teach appropriate lessons to preschool, elementary, and/or beginning ASL students. Students in this course are expected to work independently on translations and present the translations to the teacher or the class.									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								

CHINESE I			MCPS Course Code	58100	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> In this course, students will develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. Students will learn the four language skills in Mandarin Chinese – listening, speaking, reading and writing – with an emphasis on the ability to communicate orally and in writing. Students begin to explore and study the themes of Personal and Family Life, School Life, Social Life, and Community Life.									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								

FRENCH I			MCPS Course Code	51100	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> This course concentrates on conversational approach to the language, in preparation, for example, for travel and tourism or business associations. Student acquisition of practical vocabulary and grammatical concepts provide a basis for simple listening, speaking, reading and writing. Additionally, students will begin to learn about France and other francophone countries. The course provides the linguistic understanding of the language in preparation for further scholarship.									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								


FRENCH II			MCPS Course Code	51200	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	C average or better in French I						
<b>Course Description:</b> This course further develops speaking, listening, reading, and writing skills, broadening the formal study of grammar and vocabulary. Students will continue to learn about France and other francophone countries. Much of the class will be conducted in French.									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								

FRENCH III			MCPS Course Code	51300	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	10-12	Prerequisite(s)	C average or better in French II						
<b>Course Description:</b> This course introduces advanced grammatical structures and vocabulary and encourage creative expression as students both write short compositions and give oral presentations on a variety of topics. Students will continue to read in French, with an introduction to French literature and history. The class will be conducted almost entirely in French.									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								

FRENCH IV			MCPS Course Code	51400	High School Credits		1	Graduation Requirement	SOL Test(s) Required
					Weighted				
					Credit Type	World Language			
Grade Level	11-12	Prerequisite(s)	C average or better in French III						
<b>Course Description:</b> In this course, students will continue to improve their listening, speaking, reading, and writing skills through the study of more complex grammatical structures and vocabulary, as well as an artistic, literary, and historical survey of France. Students will continue to study other francophone countries as well. The class is conducted almost entirely in French.									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								

FRENCH V			MCPS Course Code	51500	High School Credits		1	Graduation Requirement
					Weighted			SOL Test(s) Required
					Credit Type	World Language		
Grade Level		Prerequisite(s)	C average or better in French IV					
<b>Course Description:</b> This course continues to reinforce the grammar and structures of French IV. The material will focus on French conversation, literature from French authors, cultural and current events, and listening activities to increase comprehension. The class is conducted entirely in French.								
AHS		<i>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</i>						
BHS								
CHS								
EMHS								



AP FRENCH LANGUAGE AND CULTURE				MCPS Course Code	5170A	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type		World Language		
Grade Level		11-12	Prerequisite(s)		C average or better in French IV					
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP French Language and Culture course. The course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in French. The course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).										
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.								
BHS	•									
CHS	•									
EMHS	•									

GERMAN I			MCPS Course Code	52100	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> This course concentrates on the acquisition of practical vocabulary and grammatical concepts to provide a basis for simple listening, speaking, reading and writing skills. Aspects of German culture will be explored. The course stresses fundamental skills and knowledge that provides a basic preparation for travel and tourism and the linguistic understanding of language for further scholarship.									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								

GERMAN II			MCPS Course Code	52200	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	C average or better in German I						
Course Description: This course further develops the four basic communications skills (speaking, listening, reading, and writing) skills by broadening the formal study of grammar and continued vocabulary building. The study of German culture will continue and students will use original sources as reading materials.									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								

GERMAN III			MCPS Course Code	52300	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	10-12	Prerequisite(s)	C average or better in German II						
<b>Course Description:</b> This course reviews previously learned grammar and present advanced grammatical structures such as passive and subjunctive forms of verbs. Students will extend their vocabulary, be introduced to more challenging literature, and be expected to apply good conversational skills. All four communication skills (reading, writing, speaking, and listening) are stressed.									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								

GERMAN IV			MCPS Course Code	52400	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	11-12	Prerequisite(s)	C average or better in German III						
<b>Course Description:</b> In this course, students will continue to improve their listening, speaking, reading, and writing skills through the application of more complex grammatical structures and vocabulary. Students will study original German literature and write about and discuss a variety of topics including German culture, history and politics.									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								

GERMAN V			MCPS Course Code	52500	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language			
Grade Level		Prerequisite(s)	C average or better in German IV						
<b>Course Description:</b> This course continues to reinforce the grammar and structures of German IV. The material will focus on German conversation, literature written in German, cultural, historical and current events, as well as, listening activities to increase comprehension.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									


SPANISH I			MCPS Course Code	55100	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> This course concentrates on the acquisition of practical vocabulary and grammatical concepts to provide a basis for simple listening, speaking, reading and writing skills. The cultures of Spanish speaking countries will be explored. The course stresses fundamental skills and knowledge that provides a basic preparation for further scholarship.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

SPANISH II			MCPS Course Code	55200	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	C average or better in Spanish I						
<b>Course Description:</b> This course further develops the four basic communications skills (speaking, listening, reading, and writing) through increased formal study of grammar and continued vocabulary building. Exploration of the culture of Spanish-speaking countries will continue.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

SPANISH III			MCPS Course Code	55300	High School Credits		1	Graduation Requirement	SOL Test(s) Required
					Weighted				
					Credit Type	World Language			
Grade Level	10-12	Prerequisite(s)	C average or better in Spanish II						
<b>Course Description:</b> This course emphasizes an in-depth cultural study of the target countries by means of oral and written expressions, including authentic materials. Previously-learned grammar will be reviewed and advanced grammatical studied. Vocabulary will be introduced and students will apply their understanding of the Spanish language through reading, writing, and speaking in Spanish.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

SPANISH IV			MCPS Course Code	55400	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	11-12	Prerequisite(s)	C average or better in Spanish III						
<b>Course Description:</b> In this course, students will continue to improve their listening, speaking, reading, and writing skills through the application of more complex grammatical structures and vocabulary and the study of authentic resources. Students will study original selections from classical and contemporary literature, history and fine arts. Additionally, students will continue to study Hispanic culture.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

SPANISH V			MCPS Course Code	55500	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level			Prerequisite(s)	C average or better in Spanish IV					
<b>Course Description:</b> This course continues to reinforce the grammar and structures of Spanish IV. The material will focus on Spanish conversation, literature from Spanish authors, cultural and current events, and listening activities to increase comprehension.									
AHS		<i>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</i>							
BHS									
CHS									
EMHS									

AP SPANISH LANGUAGE & CULTURE				MCPS Course Code	5570A	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type	World Language		SOL Test(s) Required	
Grade Level		11-12	Prerequisite(s)	C average or better in Spanish IV						
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Spanish Language and Culture course. The course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Spanish Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish. The AP Spanish Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students’ awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).										
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.								
BHS	•									
CHS	•									
EMHS	•									

SPANISH VI			MCPS Course Code	55600	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	11-12	Prerequisite(s)	C average or better in AP Spanish Language & Culture						
Course Description: This course continues to reinforce the grammar and structures of Spanish V. The material will focus on Spanish conversation, literature from Spanish authors, cultural and current events, and listening activities to increase comprehension.									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								

# ENGLISH ELECTIVES

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WORLD MYTHOLOGY			MCPS Course Code	11650	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> This course introduces students to major themes, stories, and characters in the mythologies of several different cultures. The course will concentrate on Greek and Roman mythology, but will also include material from Norse, Celtic, Native American, African and Egyptian mythology. The course will be taught using an interdisciplinary approach that considers literary and artistic themes from diverse perspectives including theology, sociology, anthropology and history.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								


CREATIVE WRITING / LITERARY MAGAZINE I			MCPS Course Code	11710	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level		9-12	Prerequisite(s)						
<b>Course Description:</b> This course has a dual objective: to develop student poetry and prose fiction and to publish a professional quality literary magazine during the spring semester. Students will receive feedback on their own writing and will learn the fundamentals of editing. Students will serve as the staff in all aspects of magazine publication: desktop publishing technology, promotion, and advertising.									
AHS	•								
BHS	•								
CHS	•								
EMHS									


CREATIVE WRITING / LITERARY MAGAZINE II			MCPS Course Code	11711	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective	SOL Test(s) Required		
Grade Level	9-12	Prerequisite(s)	Creative Writing / Literary Magazine I						
<b>Course Description:</b> This course is a writing intensive class designed for students who have completed the introductory course, Creative Writing/Literary Magazine I. The course builds upon and refines the skills and concepts developed in the introductory course and will feature self-directed projects and student-led discussions with a strong emphasis on the professional writer's craft. Journals, short stories, and poetry will be gathered and developed into lengthier pieces such as a novella, memoir, and scrapbook by the end of the semester. Students are required to submit work for publications both within and outside the school. Creative Writing/Literary Magazine II students will assume the staff leadership roles for the school's online literary magazine, Impressions.									
AHS	•								
BHS	•								
CHS	•								
EMHS									

JOURNALISM I			MCPS Course Code	12000	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	English grade of “B” or higher is strongly recommended and teacher recommendation is required.						
<b>Course Description:</b> In this course, students will learn the basics of journalism, with a focus on print media. Students will write newspaper articles, take photographs, sell advertisements, and create page layouts. Members of the class will use available technology for page design and digital photography. <b>This is a publications course. It does not satisfy the required English course for each grade.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

JOURNALISM II			MCPS Course Code	12100	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level		10-12	Prerequisite(s)	Journalism I					
<b>Course Description:</b> In this course, students will continue the requirements of Journalism I and also fulfill leadership roles and responsibilities. Second-year staff members will be responsible for the overall production of the newspaper and important decision making. <b>This is a publications course. It does not satisfy the required English course for each grade.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

JOURNALISM III			MCPS Course Code	12110	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level		11-12	Prerequisite(s)	Journalism II with teacher recommendation is required.					
<b>Course Description:</b> In this course, students will continue the requirements of Journalism II and also fulfill leadership roles and responsibilities. Third-year staff members will be responsible for the overall production of the newspaper and important decision making. <b>This is a publications course. It does not satisfy the required English course for each grade.</b>									
AHS	•								
BHS									
CHS									
EMHS	•								

DE JOURNALISM I			MCPS Course Code	DE1211	High School Credits		1	Graduation Requirement	
					Weighted		✓		
					Credit Type	English Elective		SOL Test(s) Required	
Dual Enrolled	✓		NRCC Course Code(s)	ENG 121 & ENG 122	College Credits		6		
Grade Level		11	Prerequisite(s)	Placement test and English grade of “B” or higher is strongly recommended; teacher recommendation is required.					
<b>Course Description:</b> This course is based on the NRCC syllabus for Introduction to Journalism I & II. To meet NRCC requirements, the course introduces students to all news media, especially news gathering and preparation for print. This course may carry with it a fee to NRCC. <b>This is a publications course. It does not satisfy the required English course for each grade. NOTE: Students must complete the ENG 121 portion of this course with a D or better in order to advance to the ENG 122 portion of this course.</b> This course may carry with it a fee to NRCC.									
AHS									
BHS	•								
CHS									
EMHS									

DE JOURNALISM II				MCPS Course Code	DE1212	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type	English Elective		SOL Test(s) Required	
Dual Enrolled	✓			NRCC Course Code(s)	ENG 221 & ENG 222	College Credits		6		
Grade Level		12	Prerequisite(s)	DE1211 with teacher recommendation is required.						
<b>Course Description:</b> This course is based on the NRCC syllabus for Advanced Journalism I & II. To meet NRCC requirements, the course continues the study of all news media, especially news gathering and preparation for print. This course may carry with it a fee to NRCC. <b>This is a publications course. It does not satisfy the required English course for each grade. NOTE: Students must complete the ENG 221 portion of this course with a D or better in order to advance to the ENG 222 portion of this course.</b> This course may carry with it a fee to NRCC.										
AHS										
BHS										
CHS										
EMHS										

YEARBOOK PRODUCTION I			MCPS Course Code	12150	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	English Elective	SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	Teacher recommendation.					
<b>Course Description:</b> This course covers basic principles of media ethics, graphic design, page design and layout, photo cropping, reporting, copyrighting, copy-editing, and advertising. It provides students with hands-on experience in planning and preparation of the school yearbook. Students are required to sell ads and/or contact businesses for the purpose of fund raising. <b>This is a publications course. It does not satisfy the required English course for each grade. This course may be used to fulfill the fine arts requirement.</b>								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							



YEARBOOK PRODUCTION II			MCPS Course Code	12160	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level	10-12	Prerequisite(s)	Membership in grades 10-12 and Media Arts I with recommendation by course teacher.						
<b>Course Description:</b> This course continues the study of journalistic principles and practices and adds a “hands-on” approach to photography. Students will take part in the concept development, headline writing, picture taking, article writing and editing of the school yearbook. <b>This is a publications course. It does not satisfy the required English course for each grade. This course may be used to fulfill the fine arts requirement.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

YEARBOOK PRODUCTION III			MCPS Course Code	12170	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	English Elective		SOL Test(s) Required
Grade Level	11-12	Prerequisite(s)	Membership in grades 10-12 and Media Arts II with recommendation by course teacher.					
<b>Course Description:</b> This course continues the application of photojournalism principles and practices with the use of desktop publishing. Media Arts III students will take on added responsibilities and assist in each phase of the production of the school yearbook. Editing pages and teaching fundamentals of yearbook design to new staff members will also be required. <b>This is a publications course. It does not satisfy the required English course for each grade. This course may be used to fulfill the fine arts requirement.</b>								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							

YEARBOOK PRODUCTION IV			MCPS Course Code	12171	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level	11-12	Prerequisite(s)	Membership in grades 10-12 and Media Arts III with recommendation by course teacher.						
<b>Course Description:</b> Students in this course will fulfill leadership roles and responsibilities in the production of the school yearbook (editors, editors-in-chief, etc.) and will be responsible for the writing, rewriting, editing, and proofreading of the articles, picture taking, picture cropping, layout design, headlines, and captions. Legal and financial aspects will be taught as well as the responsibilities of the yearbook advisors. <b>This is a publications course. It does not satisfy the required English course for each grade. This course may be used to fulfill the fine arts requirement.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

FREE SHAKESPEARE			MCPS Course Code	15181	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level	10-12	Prerequisite(s)	Teacher Approval						
<b>Course Description:</b> This course expands theatre offerings by providing an opportunity for exposure to Shakespearean plays and allowing students to interact with the set of each play, create set pieces and costumes, and learn how to cut a script to make the plays their own. It allows multiple learning abilities to work together and gain confidence in analysis, public speaking, creative movement, and artistic expression.									
AHS	•								
BHS									
CHS	•								
EMHS									


FILM STUDY			MCPS Course Code	14460	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English or Fine Arts Elective		SOL Test(s) Required	
Grade Level		10-12	Prerequisite(s)	Teacher Approval					
<b>Course Description:</b> This course explores the history of movies from the silents to the present through viewing selected material representing different periods of history, styles, and genres; through reading about the medium; and through evaluating material presented to the public of today by studying reviews and seeing current releases. <b>This course may be used to fulfill the fine arts requirement.</b>									
AHS	•								
BHS									
CHS	•								
EMHS									




SPEECH FUNDAMENTALS (FORENSICS/DEBATE)			MCPS Course Code	13000	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level		Prerequisite(s)	Teacher Approval						
<b>Course Description:</b> This course introduces to the rules and events for competitive public speaking. They will be assisted in choosing which aspects of these activities they wish to pursue. The majority of class time will be devoted to preparation of, and participation in, competitive activities. Students will be required to participate in out of town competitions at their own expense as a part of the course requirements. Labs will be directed by the teachers responsible for forensic and debate activities. The lab sessions will be divided between debate and speech. It is possible for a student to participate in both labs or only one. The credit for the course is limited to one credit per year, regardless of whether the student participates in both labs or only one. This course takes place outside of regular school hours (scheduled as a “0 Period”). The course may be repeated for credit. <b>This course does not satisfy the required English course for each grade.</b>									
AHS		<i>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</i>							
BHS									
CHS									
EMHS									

# HISTORY / SOCIAL SCIENCES ELECTIVES



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PSYCHOLOGY			MCPS Course Code	29000	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	History / Social Sciences Elective		SOL Test(s) Required	
Grade Level	11-12	Prerequisite(s)							
<b>Course Description:</b> This course provides a study of the thought processes and behavior of humans and examines the history of psychology including modern methods of behavioral analysis. Various topics of interest are covered, including the brain and learning styles, biological behavior, human development stages from infancy to elderly, personality types, the effects of sleep and sleep disorders, dream stages, intelligence, and psychological disorders. Through examination of these topics, students gain an in-depth understanding of their behavior, as well as the behavior of others.									
AHS									
BHS									
CHS	•								
EMHS	•								


AP PSYCHOLOGY				MCPS Course Code	2902A	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type	History / Social Sciences Elective	SOL Test(s) Required		
Grade Level	11-12	Prerequisite(s)								
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Psychology course. The course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with such topics as the biological bases of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatment of abnormal behavior, and social psychology. Throughout the course, students employ psychological research methods, including ethical considerations, as they use the scientific method, evaluate claims and evidence, and effectively communicate ideas. This survey course is an opportunity to investigate the field of psychology in greater depth than the psychology/sociology course offers. Students will concentrate on recent studies across many topics/subfields of psychology. Critical thinking skills and analysis will also be developed throughout work in the course.										
AHS										
BHS	•									
CHS	•									
EMHS										

DE/AP PSYCHOLOGY				MCPS Course Code	DE2900A	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type	History / Social Sciences Elective		SOL Test(s) Required	
Dual Enrolled	✓		NRCC Course Code(s)	PSY 200	College Credits		3			
Grade Level		11-12	Prerequisite(s)	See Below *						
<b>Course Description:</b> See course description for AP Psychology (2902A).										
This course is also based on the NRCC syllabus for Principles of Psychology. To meet NRCC requirements, the course surveys the basic concepts of psychology. It covers the scientific study of behavior and mental processes, research methods, biological bases of behavior, sensation and perception, developmental psychology, learning, memory, thinking, intelligence, personality, social psychology, and psychological disorders and treatment. The assignments in the course require college-level reading fluency and coherent communication through written reports.										
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.										
AHS										
BHS	•									
CHS										
EMHS										
There are <u>not</u> two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC. <b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.										
DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.										

PSYCHOLOGY/SOCIOLOGY			MCPS Course Code	29960	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	History / Social Sciences Elective		SOL Test(s) Required	
Grade Level	11-12	Prerequisite(s)							
<b>Course Description:</b> <b>Psychology (Taught for one semester)</b> - This course explores the science of behavior and thinking of organisms. In general, the course deals with topics like human development, personality, learning theory, motivation, mental illness and group behavior. Areas of current interest such as drug abuse and stress are explored. In specific, the student is able to apply many learning situations to his/her everyday life. <b>Sociology (Taught for one semester)</b> - This course deals with the concepts and principles necessary for the study of human relationships from the level of small group to mass behavior. In addition, students learn the terminology and scientific methodology of the discipline. Some special topics emphasized include the components and variations of culture and the ways individuals are socialized into their culture. A major unit on social institutions presents the institutions by which society functions: the family, education, religion, economy, and government. Causes and consequences of social problems in our society are considered along with causes of unplanned social change and strategies for implementing intentional change.									
AHS									
BHS	•								
CHS	•								
EMHS									

DE PSYCHOLOGY/SOCIOLOGY			MCPS Course Code	DE2996	High School Credits	1	Graduation Requirement
					Weighted	✓	
					Credit Type	History / Social Sciences Elective	SOL Test(s) Required
Dual Enrolled	✓		NRCC Course Code(s)	PSY 200 & SOC 200	College Credits	6	
Grade Level	11-12	Prerequisite(s)	See Below *				
<b>Course Description:</b> This course is based on NRCC syllabi for Principles of Psychology and Introduction to Sociology. To meet NRCC requirements, the <b>PSY 200</b> portion of the course surveys the basic concepts of psychology. It covers the scientific study of behavior and mental processes, research methods, biological bases of behavior, sensation and perception, developmental psychology, learning, memory, thinking, intelligence, personality, social psychology, and psychological disorders and treatment. The assignments in the course require college-level reading fluency and coherent communication through written reports. The <b>SOC 200</b> portion of the course Introduces the fundamental concepts and principles of sociology with attention to sociological theory, research methods, and the impact of social inequality. It examines a variety of topics such as culture, race, social class, gender, major social institutions and their role in contemporary society, and the processes of social change. <b>NOTE: Only PSY 200 is a Passport Transfer course.</b>							
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b>							
VIRTUAL DE PSYCHOLOGY / SOCIOLOGY		DE2996V	Same as DE2996 except the course is offered virtually.				
AHS	•	Only the virtual course is available at this time.					
BHS	•						
CHS	•						
EMHS	•						


DE PHILOSOPHY				MCPS Course Code	DE2905	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type	History / Social Sciences Elective		SOL Test(s) Required	
Dual Enrolled	✓			NRCC Course Code(s)	PHI 100	College Credits		3		
Grade Level		11-12	Prerequisite(s)		NRCC Placement Exam					
<b>Course Description:</b> This course is based on NRCC syllabi for Introduction to Philosophy. To meet NRCC requirements, the course presents an introduction to philosophical problems and perspectives with emphasis on the systematic questioning of basic assumptions about meaning, knowledge, reality, and values. Students will be introduced to the major topics, problems, and methods of philosophy and survey the writings of a number of major historical figures in the field. This class includes an exploration of the fundamental questions in several of the core areas of philosophy, including metaphysics, epistemology, political philosophy, ethics, and the philosophy of religion.										
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.								
BHS										
CHS										
EMHS										

DE CONTEMPORARY WORLD RELIGIONS				MCPS Course Code	DE2999	High School Credits Weighted	1 ✓	Graduation Requirement
						Credit Type	History / Social Sciences Elective	SOL Test(s) Required
Dual Enrolled	✓			NRCC Course Code(s)	REL 230	College Credits		3
Grade Level		11-12	Prerequisite(s)	See Below *				
<b>Course Description:</b> This course is based on NRCC syllabi for Religions of the World. To meet NRCC requirements, the course introduces the religions of the world with attention to origin, history, and doctrine. Students consider the major teachings, beliefs and devotional practices of the world's religions, including views of the absolute, ceremonial rituals, sacred experiences and prevalent stories. This class includes modules on Buddhism, Christianity, Judaism, Daoism, Confucianism, Islam, Hinduism and various indigenous traditions.								
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b>								
AHS								
BHS	•							
CHS								
EMHS								




APPALACHIAN HISTORY			MCPS Course Code	29970	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	History / Social Sciences Elective		SOL Test(s) Required	
Grade Level		10-12	Prerequisite(s)						
<b>Course Description:</b> This course introduces the Appalachian Mountain region through a survey of its geography, history, cultures, lifestyles, and the arts. A focus will be on local/regional history to provide an awareness and appreciation for the Appalachian region. Basic to the course are focused readings and discussions on Appalachia, including multiple perspectives on a variety of topics that may encompass among them geography, history, culture, folklore, literature, music, the arts, economics, politics, religion, and education.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

WOMEN’S STUDIES			MCPS Course Code	29980	High School Credits		1	Graduation Requirement	SOL Test(s) Required
					Weighted				
					Credit Type	History / Social Sciences Elective			
Grade Level	10-12	Prerequisite(s)							
<b>Course Description:</b> This course is an introduction to the interdisciplinary field of Women’s Studies through global and multicultural perspectives. It provides an overview of women’s experiences and their activism to achieve equality over time and across the world, with attention to differences of gender, race, ethnicity, class, sexuality, and nation. Topics include women’s rights movements, gender as a social and historical context, pop culture messages, as well as women in religion and politics and an exploration of ecofeminism.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

AFRICAN AMERICAN HISTORY			MCPS Course Code	29990	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	History / Social Sciences Elective	SOL Test(s) Required		
Grade Level	10-12	Prerequisite(s)							
<p><b>Course Description:</b> This course surveys African American history from precolonial Africa through today. It introduces students to key concepts in African American history, from early beginnings in Africa through the trade of enslaved Africans; the agency and resilience of African Americans during the Civil War, Emancipation, and Reconstruction to the modern civil rights era; and the joy, celebrations, and collaborations in the art, history and culture of the past and Modern Black America. Students will learn about African American voices, including many not traditionally highlighted, and their contributions to the story of Virginia and America. The course will challenge students to explore primary and secondary sources documenting the African American experience. The content includes opportunities for students to develop the skills and attributes known as Virginia’s Five C’s (critical thinking, creativity, collaboration, communication, and citizenship) as they connect what they have learned to local history and issues.</p> <p>This state-developed African American History elective course is presented in a blended learning format, an approach to education that provides students the opportunity to engage in the content through teacher-led class discussions and interactive digital content. In addition to the state-developed content, this course will integrate local history related to:</p> <ul style="list-style-type: none"><li>• Slavery in Montgomery County (Christiansburg, VA)</li><li>• Plantation Life (Historic Smithfield Plantation/Kentland Farm- Blacksburg, VA)</li><li>• New Town: Montgomery County, VA</li><li>• Christiansburg Industrial Institute</li><li>• African American Life in Christiansburg, VA (Historical Sites)</li><li>• African Americans at Virginia Tech</li></ul> <p>This course also includes a capstone project asking students to conduct independent research on a question or problem of their choosing in order to demonstrate a deeper understanding or encounter a different perspective of African American history.</p>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

AP AFRICAN AMERICAN STUDIES			AP 	MCPS Course Code	2999A	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	History / Social Sciences Elective	SOL Test(s) Required	
Grade Level		11-12	Prerequisite(s)						
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP African American Studies course. This course examines the diversity of African American experiences through direct encounters with varied sources. Students explore key topics that extend from early African kingdoms to the ongoing challenges and achievements of the contemporary moment. This course foregrounds a study of the diversity of Black communities in the United States within the broader context of Africa and the African diaspora.									
AHS									
BHS	•								
CHS	•								
EMHS									






DE/AP HUMAN GEOGRAPHY 			MCPS Course Code	DE2212A	High School Credits		1	Graduation Requirement		
					Weighted		✓			
					Credit Type	History / Social Sciences		SOL Test(s) Required		
Dual Enrolled	✓		NRCC Course Code(s)	GEO 210 & GEO 220	College Credits		6			
Grade Level		10-12	Prerequisite(s)		World History & Geography to 1500 AD. Students should be able to read a college-level textbook and write grammatically correct, complete sentences.*					
<p><b>Course Description:</b> The content of this college-level course contains seven units of study as outlined in the 2019 Course and Exam Description (CED) published by the College Board. The units in the CED focus on topics including thinking geographically, population and migration, culture, political geography, agriculture, urban geography, and development and industrialization. Students will have multiple opportunities to apply the information addressed in each unit in activities including note-taking, current events, projects, and formative and summative assessments. The goal for the course is for students to become more geoliterate, more engaged in contemporary global issues, and more informed about multicultural viewpoints.</p> <p><b>NOTE:</b> All DE/AP Human Geography students who must earn a verified credit for social studies will complete performance-based assessments for inclusion in their course portfolio that will be evaluated, along with other assignments, to earn a Verified Credit in social studies. (<i>VDOE contingencies may necessitate the continued use of the traditional SOL end-of-course examination.</i>)</p>										
AHS										
BHS	•	This course is offered only as AP Human Geography (2212A) at BHS at this time.								
CHS	•									
EMHS										
<p>There are <b>not</b> two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC. * <b>In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.</p> <p>DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.</p>										



# MATHEMATICS ELECTIVES


MATHEMATICS CAPSTONE GRADE 12			MCPS Course Code	31360	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Math		SOL Test(s) Required	
Grade Level	12	Prerequisite(s)	AFDA or Algebra II						
<b>Course Description:</b> This course contains high-interest contextualized content designed to give certain students an additional boost for competent and successful entry into college and careers. The course will add to students’ preparation for college and the workplace by 1) enhancing skills in number and quantity, functions and algebra, geometry, and statistics and probability; and 2) simultaneously reinforcing readiness skills and dispositions in adaptability and flexibility, creativity and innovation, leadership, team work, collaboration, and work ethic. The mathematics capstone course is designed for high school seniors who have satisfactorily completed the required mathematics courses based on the Standards of Learning including Algebra, Functions, and Data Analysis or Algebra II; who have earned at least two verified credits in mathematics; and are intending to go to college, but may not be fully college-ready. <b>For students who have successfully completed Algebra II, this course may serve as the fourth mathematics credit counting toward the Advanced Studies Diploma.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								




TRIGONOMETRY / ADVANCED ALGEBRA			MCPS Course Code	31500	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Math		SOL Test(s) Required	
Grade Level	10-12	Prerequisite(s)	Algebra II						
<b>Course Description:</b> This course extends Algebra II concepts with an emphasis on functions, theory of equations, graph theory, sequences and series, and conic sections. Trigonometric topics are introduced and fully developed to include triangular and circular definitions of the trigonometric functions, establishing identities, special angle formulas, Law of Sines, Law of Cosines, and solutions of trigonometric equations.									
<b>NOTE:</b> This course content is designed to prepare students for DE/AP Precalculus with Trigonometry or a Calculus course. In order to enroll in DE/AP Precalculus or DE/AP Calculus, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a> ) in addition to successful completion of prerequisite courses.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								



DE/AP PRECALCULUS w/TRIGONOMETRY				MCPS Course Code	DE3162A	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type	Math		SOL Test(s) Required	
Dual Enrolled	✓			NRCC Course Code(s)	MTH 167	College Credits		5		
Grade Level		11-12	Prerequisite(s)	Algebra II or Trigonometry/Advanced Algebra <b>NOTE:</b> A grade of C or higher in a prerequisite course is required <b>OR</b> Placement into MTH 161 or higher on VPT (Satisfaction of MTE 1-9) is required in addition to successful completion of a prerequisite course *						
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Precalculus course and the NRCC syllabus for Precalculus with Trigonometry. Students will study a broad spectrum of function types that are foundational for careers in mathematics, physics, biology, health science, business, social science, and data science. This course fosters the development of a deep conceptual understanding of functions including power, polynomial, rational, exponential, and logarithmic functions. Topics in this course also include systems of equations, trigonometry, and trigonometric applications, including Law of Sines and Cosines, as well as an introduction to conics. The one-semester course will prepare students for the skills and level of rigor needed for successful study in a sequence of courses in calculus with analytic geometry.										
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. Students in grades 9 and 10 also may qualify to take this course if they meet the established criteria for “Special Circumstances” (see <a href="#">pages 200-201</a>). This course may carry with it a fee to NRCC.</b>										
AHS	•	<b>Also may be offered as AP Precalculus</b> (based on the availability of qualified staff at each high school who have the necessary credentials to teach dual-enrolled Mathematics).								
BHS	•									
CHS	•									
EMHS	•									
There are <b>not</b> two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC.										
DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.										

CALCULUS			MCPS Course Code	31995	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Math		SOL Test(s) Required
Grade Level	11-12	Prerequisite(s)	Trigonometry/Advanced Algebra or DE/AP Precalculus with Trigonometry					
<b>Course Description:</b> This course provides students with a study of limits, continuity of functions, the derivative and its applications, and the definite integral and its applications. All topics will be investigated analytically, numerically, and graphically. Technology will be used as a tool to verify and investigate mathematical concepts and ideas. <b>Note: This course may be taken by students who are not eligible to take a dual enrolled Calculus course</b>								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							


DE APPLIED CALCULUS I			MCPS Course Code	DE31998	High School Credits		1	Graduation Requirement	
					Weighted		✓		
					Credit Type	Math		SOL Test(s) Required	
Dual Enrolled	✓		NRCC Course Code(s)	MTH 261	College Credits		3		
Grade Level		11-12	Prerequisite(s)	DE/AP Precalculus w/Trigonometry (with a grade of C or higher) <b>OR</b> Placement into MTH 261 or higher on the VPT-Calculus in addition to successful completion of Trigonometry /Advanced Algebra *					
<p><b>Course Description:</b> This course is based on the NRCC syllabus for Applied Calculus I. To meet NRCC requirements, the course will introduce limits, continuity, differentiation and integration of algebraic, exponential and logarithmic functions, and techniques of integration with an emphasis on applications in business, social sciences and life sciences.</p> <p><b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b></p> <p><b>NOTE: Students should determine requirement of 4-year transfer institution prior to selection. Both MTH 261 and MTH 262 are required at Virginia Tech for majors in the The Pamplin College of Business.</b></p>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

DE APPLIED CALCULUS II				MCPS Course Code	DE31999	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	Math		SOL Test(s) Required
Dual Enrolled	✓			NRCC Course Code(s)	MTH 262	College Credits		3	
Grade Level		11-12	Prerequisite(s)	DE Applied Calculus I (with a grade of C or higher) *					
<p><b>Course Description:</b> This course is based on the NRCC syllabus for Applied Calculus II. To meet NRCC requirements, the course will cover techniques of integration, an introduction to differential equations and multivariable calculus, with an emphasis throughout on applications in business, social sciences and life sciences.</p> <p>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</p> <p><b>NOTE:</b> Students should determine requirement of 4-year transfer institution prior to selection. Both MTH 261 and MTH 262 are required at Virginia Tech for majors in the The Pamplin College of Business.</p>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

DE/AP CALCULUS I (AB)				MCPS Course Code	DE3177A	High School Credits Weighted	1 ✓	Graduation Requirement	
						Credit Type	Math	SOL Test(s) Required	
Dual Enrolled	✓		NRCC Course Code(s)	MTH 263	College Credits			4	
Grade Level	11-12	Prerequisite(s)	DE/AP Precalculus w/Trigonometry (with a grade of C or higher) <b>OR</b> Placement into MTH 263 on the VPT-Calculus in addition to successful completion of Trigonometry /Advanced Algebra *						
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Calculus AB course and the NRCC syllabus for Calculus with Analytic Geometry I. The course is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The course covers topics in these areas, including concepts and skills of limits, derivatives, differentiation of various types of functions and use of differentiation rules, application of differentiation, antiderivatives, integrals and applications of integration, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to reinforce relationships among functions, to confirm written work, to implement experimentation, and to assist in interpreting results.									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.									
AHS	•	<b>Also may be offered as AP Calculus AB</b> (based on the availability of qualified staff at each high school who have the necessary credentials to teach dual-enrolled Mathematics).							
BHS	•	DE DE/AP Calculus I (AB) and DE/AP Calculus II (BC) may be offered as stand-alone, year-long or semester courses <b>OR</b> as semester courses within the same school year (allowing students to complete both courses in one school year).							
CHS	•								
EMHS	•	Depending on sufficient student interest, availability of school-site resources, and staffing, it is also possible that both DE DE/AP Calculus I (AB) and DE/AP Calculus II (BC) may be offered each year or in alternating years.							
There are <b>not</b> two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC.									
DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.									

DE/AP CALCULUS II (BC)				MCPS Course Code	DE3178A	High School Credits		1	Graduation Requirement		
						Weighted		✓			
						Credit Type	Math				
Dual Enrolled	✓			NRCC Course Code(s)	MTH 264	College Credits		4			
Grade Level		11-12	Prerequisite(s)		DE/AP Calculus I (AB) with a C or higher *						
Course Description: The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Calculus BC course and the NRCC syllabus for Calculus with Analytic Geometry II. The course is roughly											
AHS	•	<b>Also may be offered as AP Calculus BC</b> (based on the availability of qualified staff at each high school who have the necessary credentials to teach dual-enrolled Mathematics).  DE/AP Calculus I (AB) and DE/AP Calculus II (BC) may be offered as stand-alone, year-long or semester courses <b>OR</b> as semester courses within the same school year (allowing students to complete both courses in one school year).  Depending on sufficient student interest, availability of school-site resources, and staffing, it is also possible that both DE/AP Calculus I (AB) and DE/AP Calculus II (BC) may be offered each year or in alternating years.									
BHS	•										
CHS	•										
EMHS	•										
There are <b>not</b> two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC.											
DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.											

COMPUTER SCIENCE FOUNDATIONS			MCPS Course Code	32000	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective	SOL Test(s) Required		
Grade Level	9-12	Prerequisite(s)	Algebra I						
<b>Course Description:</b> This foundational course places an emphasis on computer programming within the context of broader concepts of computer science. The standards of the course build on the concepts of computer science developed in prior grade levels. The standards provide a transition from block-based programming to a text-based programming language and familiarize the student with developing and executing computer programs. Students will use programmable computing tools throughout the course for exploring and creating computer programs, facilitating reasoning and problem solving, and verifying solutions.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								


AP COMPUTER SCIENCE PRINCIPLES				MCPS Course Code	3186A	High School Credits	1	Graduation Requirement	
						Weighted	✓		
						Credit Type	Elective	SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	Successful completion of Algebra I with a strong foundation on basic linear functions and composition of functions, and problem solving strategies that require multiple approaches and collaborative efforts. Ability to use a Cartesian (x,y) coordinate system to represents points in a plane. It is important that students and their advisers understand that any significant computer science course builds upon a foundation of mathematical and computational reasoning that will be applied throughout the study of the course.						
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Computer Science Principles course. The course is designed to be equivalent to a first- semester introductory college computing course. In this course, students will develop computational thinking skills vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will also develop effective communication and collaboration skills by working individually and collaboratively to solve problems, and will discuss and write about the impacts these solutions could have on their community, society, and the world. This course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. This course is intended for a broader audience than the math-intensive AP Computer Science A course. <b>This course does NOT provide a Math credit.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•	Offered in alternating year with Probability and AP Statistics (Next offering: 2023-2024)							


AP COMPUTER SCIENCE A			AP	MCPS Course Code	3185A	High School Credits		1	Graduation Requirement	SOL Test(s) Required
			Weighted			✓				
			Credit Type			Math or Science				
Grade Level	10-12	Prerequisite(s)	Knowledge of basic English and algebra. Comfortable with functions and the concepts found in the uses of function notation. It is important that students and their advisers understand that any significant computer science course builds upon a foundation of mathematical reasoning that should be acquired before attempting such a course.							
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Computer Science A course. The course is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A course curriculum is compatible with many CS1 courses in colleges and universities.										
<b>Note:</b> This course can be used as a science credit but may NOT be used to meet the discipline requirements for standard and advanced studies diplomas										
AHS										
BHS	•									
CHS										
EMHS	•									

PROBABILITY & STATISTICS			MCPS Course Code	31900	High School Credits		1	Graduation Requirement	SOL Test(s) Required
					Weighted				
					Credit Type	Math			
Grade Level	10-12	Prerequisite(s)	AFDA or Algebra II						
<b>Course Description:</b> This course is an introduction to descriptive statistics, elementary probability theory (experimental and theoretical), linear regression and random sampling. The class is very technology-oriented and employs both graphing calculators and computer software.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

DATA SCIENCE			MCPS Course Code	32100	High School Credits		1	Graduation Requirement	SOL Test(s) Required
					Weighted				
					Credit Type	Math			
Grade Level	10-12	Prerequisite(s)	AFDA or Algebra II						
<b>Course Description:</b> This course provides an introduction to the learning principles associated with analyzing big data. Through the use of open source technology tools, students will identify and explore problems that involve the use of relational database concepts and data-intensive computing to find solutions and make generalizations. Students will engage in a data science problem-solving structure to interact with large data sets as a means to formulate problems, collect and clean data, visualize data, model using data, and communicate effectively about data formulated solutions.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								



AP STATISTICS				MCPS Course Code	3192A	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type		Math		SOL Test(s) Required
Grade Level		9-12	Prerequisite(s)	Algebra II						
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Statistics course. The course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.										
AHS	•									
BHS	•									
CHS	•									
EMHS	•	Offered in alternating year with AP Computer Science Principles (Next offering: 2022-23)								

DE STATISTICS			MCPS Course Code	DE3192	High School Credits		1	Graduation Requirement	
					Weighted		✓		
					Credit Type		Math		SOL Test(s) Required
Dual Enrolled	✓		NRCC Course Code(s)	MTH 245 & MTH 246	College Credits		6		
Grade Level		11-12	Prerequisite(s)	For MTH 245, completion of MTH 154 or MTH 161 or equivalent with a grade of C or better. For MTH 246, completion of MTH 245 or equivalent with a grade of C or better.					
Course Description: This course is based on NRCC syllabi for Statistics I and Statistics II. To meet NRCC requirements, this course presents an overview of statistics, including descriptive statistics, elementary probability, probability distributions, estimation, hypothesis testing, correlation, and linear regression (Statistics I), and presents an overview of statistics, including descriptive statistics, elementary probability, probability distributions, estimation, hypothesis testing, correlation, and linear regression (Statistics II). Note: NRCC will not be award or both MTH 245 and MTH 155 (Statistical Reasoning).									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									


# SCIENCE ELECTIVES

EARTH SCIENCE II METEOROLOGY			MCPS Course Code	42200	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Earth Science		SOL Test(s) Required
Grade Level	10-12	Prerequisite(s)	Earth Science I					
Course Description: This course explores earth systems science through meteorology, the study of the atmosphere. Topics include the movement of air masses, global climate changes, the effects of air pollution, and weather-related phenomenon. An understanding of convection currents, pressure changes, and cloud development will be applied through the study of weather forecasting.								
AHS								
BHS								
CHS	•							
EMHS								

EARTH SCIENCE II OCEANOGRAPHY			MCPS Course Code	42500	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Earth Science			
Grade Level	10-12	Prerequisite(s)	Earth Science I						
<b>Course Description:</b> This course explores the physical and biological processes in Earth’s oceans including geography, geology. Topics that will be studied include History of Oceanography, Navigation, Hydrologic Cycle, Plate Tectonics, Sea Floor (Bathymetry), Chemistry of Sea Water, Atmosphere and the Oceans, Ocean Currents, Waves and Tides, Life in the Water, Life on the Seafloor, Ocean Production and Nutrient Cycling, Coasts, Estuaries and Environmental Issues. GIS (Geographic Information Systems) activities will be incorporated to study these topics, whenever possible.									
AHS	•								
BHS	•								
CHS	•								
EMHS									


EARTH SCIENCE II ASTRONOMY			MCPS Course Code	42600	High School Credits		1	Graduation Requirement	SOL Test(s) Required
					Weighted				
					Credit Type	Earth Science			
Grade Level	10-12	Prerequisite(s)	Earth Science I and Algebra I						
Course Description: This course is the study of our universe. Topics that will be studied will include the life cycles of stars, cosmological theories, our solar system, and recent discoveries. Laboratory investigations will include topics such as stellar classification, star charts, spectra, and parallax. In addition, there will be opportunities to observe the night sky.									
AHS	•								
BHS									
CHS	•								
EMHS									


ENVIRONMENTAL SCIENCE			MCPS Course Code	42700	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Science (Earth Science or Biology)		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> This course integrates the study of many components of our environment, including the human impact on our planet. These outcomes focus on scientific inquiry, the physical world, the living environment, resource conservation, humans’ impact on the environment, and legal and civic responsibility. Students will focus on data collection and analysis through laboratory experiences and field work that include descriptive and comparative studies as well as investigation (i.e. meaningful watershed educational experiences). Students will be provided with opportunities to engage the community, as well as be exposed to diverse points of view about the management of natural resources, and a variety of learning experiences and career education opportunities.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

AP ENVIRONMENTAL SCIENCE 			MCPS Course Code	4270A	High School Credits		2	Graduation Requirement	
					Weighted		✓		
					Credit Type		Science (Earth Science)		
Grade Level	10-12	Prerequisite(s)	Algebra I, Earth Science, Biology I, and Chemistry I (Chemistry may be taken concurrently with AP Environmental Science)						
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Environmental Science course. The course is designed to be the equivalent of a one-semester, introductory college course in environmental science, through which students engage with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental Science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography. This course will include as many labs/field investigations as possible.									
AHS									
BHS	•								
CHS	•								
EMHS									

BIOLOGY II BOTANY/ZOOLOGY			MCPS Course Code	43200	High School Credits		1	Graduation Requirement	SOL Test(s) Required
					Weighted				
					Credit Type	Science (Biology)			
Grade Level	10-12	Prerequisite(s)	Biology I						
<b>Course Description:</b> This course is intended to provide depth and breadth in the biological field. It provides a comparative study of structure and function of living organisms and the means by which they carry out vital life functions. Consideration is given to dilemmas that confront our age, the need for critical thinking and means by which one may gain factual knowledge. Laboratory experience is provided. Topics may include botany, zoology, anatomy and physiology.									
AHS	•								
BHS	•								
CHS	•								
EMHS									

BIOLOGY II ANATOMY/PHYSIOLOGY			MCPS Course Code	43300	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Science (Biology)	SOL Test(s) Required		
Grade Level		10-12	Prerequisite(s)	Biology I					
<b>Course Description:</b> This course is designed for college bound students or students interested in the health occupational fields. Emphasis will be placed on the structure and function of the major body systems. Cytology and histology of organs will be investigated. Bacterial and viral infections affecting the human body will be addressed as well.									
AHS	•								
BHS									
CHS	•								
EMHS									

DE HUMAN ANATOMY / PHYSIOLOGY			MCPS Course Code	DE4330	High School Credits		2	Graduation Requirement	
					Weighted		✓		
					Credit Type	Science (Biology)			SOL Test(s) Required
Dual Enrolled	✓		NRCC Course Code(s)	BIO 141 & BIO 142	College Credits			8	
Grade Level		11-12	Prerequisite(s)	DE Biology I and Chemistry I (can be a co-requisite) *					
<b>Course Description:</b> This course is based on NRCC syllabus for Human Anatomy and Physiology I & II. To meet NRCC requirements, the <b>BIO 141</b> portion of the course presents the study of anatomy & physiology including anatomical terminology, homeostasis, histology, integumentary system, skeletal system, muscular system, and nervous system. The <b>BIO 142</b> portion of the course continues study of anatomy and physiology including endocrine system, blood and cardiovascular system, lymphatic system and immunity, respiratory system, urinary system, fluid, electrolyte, and acid-base balance, digestive system and nutrient metabolism, reproductive system, and prenatal development. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills. <b>Students must complete the BIO 141 portion of this course with a C or better in order to advance to the BIO 142 portion of this course.</b>									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. The prerequisite requirement from NRCC for this course may be met by any one of the following options:</b> <ul style="list-style-type: none"><li>• Successful completion of BIO 101 (DE4700) with a final grade of C or better, <b>OR</b></li><li>• Score a 70% or higher on NRCC’s NAS 2 “Challenge Exam”, <b>OR</b></li><li>• Earn an AP Biology exam score of 3 or higher</li></ul> This course may carry with it a fee to NRCC.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•	Offered in alternating year with DE Biology (Next offering: 2023-24)							


DE BIOTECHNOLOGY				MCPS Course Code	DE43201	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	Science (Biology)		SOL Test(s) Required
Dual Enrolled	✓			NRCC Course Code(s)	BIO 253	College Credits		3	
Grade Level		11-12	Prerequisite(s)		Biology I *				
<b>Course Description:</b> This course is based on NRCC syllabus for Biotechnology Concepts. To meet NRCC requirements, the course explores the growing field of biotechnology ranging from basic cellular and molecular biology concepts to both basic and advanced laboratory techniques. Emphasizes the application of biotechnology to medicine, agriculture, environmental science, and forensics. Includes discussion of the business, regulatory/legal, ethical, and societal issues of this topic as well as the growing field of bioinformatics.									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b>									
AHS									
BHS									
CHS	•								
EMHS									




BIOLOGY II BIOTECHNOLOGY			MCPS Course Code	43201	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Science (Biology)		SOL Test(s) Required	
Grade Level			Prerequisite(s)						
<b>Course Description:</b> This course is offered as an advanced biology course, focusing on how the products of living organisms (DNA sequences or protein) are modified to make new products. Biotechnology requires a basis in both biology and chemistry and would provide an engaging, relevant experience for students while also teaching the fundamentals of basic laboratory skills that could serve our students well in many fields.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

BIOLOGY II ECOLOGY			MCPS Course Code	43400	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Science (Biology)	SOL Test(s) Required	
Grade Level	10-12	Prerequisite(s)	Biology I					
<b>Course Description:</b> This course provides a study of the complex relationships between the abiotic (non-living) and the biotic organisms, which constitute the different environments on Earth and the effects that humans have on the ecosystems. This course is a more in-depth study of the relationship between the interactions of the living and non-living components of the Earth. It's designed for the student to gain more practical field applications of ecology. This is a field course and labs and field trips are an integral component of the course.								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							

BIOLOGY II GENETICS			MCPS Course Code	43500	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Science (Biology)		SOL Test(s) Required	
Grade Level		Prerequisite(s)	Biology I						
Course Description: This course explores current technological advances in genome and proteome research and how these advances are impacting society through legal, ethical, and social issues. Included in the course are in-depth studies of the principles of Mendelian inheritance, especially in regard to human traits and diseases. An integrated application is on methods for analyzing large molecular biology data sets and their applications to biological problems, and laboratory techniques for production and analysis of genetic information. This course introduces cyberinfrastructure tools, concepts and techniques.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									


BIOLOGY II BIOETHICS			MCPS Course Code	43202	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Science (Biology)		SOL Test(s) Required	
Grade Level	10-12	Prerequisite(s)	Biology I						
Course Description: In this course, students will explore contemporary topics in Biology and Biotechnology that require ethical examination. Various topics such as genetic engineering, stem cell research, genetic testing and profiling, gene therapy, reproductive technologies, and end of life issues will be discussed.									
AHS									
BHS									
CHS	•								
EMHS									

AP BIOLOGY				MCPS Course Code	4370A	High School Credits		2	Graduation Requirement	
						Weighted		✓		
						Credit Type	Science (Biology)		SOL Test(s) Required	
Grade Level	10-12	Prerequisite(s)	Biology I and Chemistry I (Chemistry may be taken concurrently with AP Biology)							
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Biology course. The course is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes — energy and communication, genetics, information transfer, ecology, and interactions. Required hands-on laboratory work will emphasize inquiry based investigations that provide students with opportunities to apply the science practices.										
AHS										
BHS	•	This course is only offered as AP Biology at BHS at this time.								
CHS										
EMHS										




DE/AP BIOLOGY				MCPS Course Code	DE4700A	High School Credits	2	Graduation Requirement	
						Weighted	✓		
						Credit Type	Science (Biology)	SOL Test(s) Required	
Dual Enrolled	✓		NRCC Course Code(s)	BIO 101 & BIO 102	College Credits			8	
Grade Level		10-12	Prerequisite(s)	Biology I and Chemistry I (Chemistry may be taken concurrently with DE Biology) *					
Course Description: See course description for AP Biology (4700A).									
This course is also based on NRCC syllabi for General Biology I and General Biology II. To meet NRCC requirements, the <b>BIO 101</b> portion of the course focuses on biological processes with a chemical foundation, including macromolecules, cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology, as well as emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. The <b>BIO 102</b> portion of the course focuses on biological processes with a chemical foundation, including macromolecules, cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology, as well as emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills. <b>Students must complete the BIO 101 portion of this course with a D or better in order to advance to the BIO 102 portion of this course.</b>									
* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a> ) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.									
AHS	•	Also may be offered as AP Biology (based on the availability of qualified staff at each high school who have the necessary credentials to teach dual-enrolled Biology).							
BHS	•								
CHS	•								
EMHS	•								

CHEMISTRY I			MCPS Course Code	44100	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Science (Chemistry)	SOL Test(s) Required		
Grade Level		10-12	Prerequisite(s)	Math courses through Algebra II or taking Algebra II concurrently.					
<b>Course Description:</b> This course involves a study of the concepts of chemistry, which are central to an understanding of the physical and chemical properties of matter. Topics include atomic structure, bonding, the Periodic Table, chemical composition, chemical equations, Thermodynamics and the properties of acids, bases, and salts. Laboratory work is designed to illustrate the basic laws of chemistry.									
CHEMISTRY I HONORS		4410H	This course incorporates the Chemistry I curriculum and is designed for students who have displayed excellence in previous science courses and are eager to put forth the time and effort to meet the demands of a more rigorous and accelerated course.						
AHS	•								
BHS	•								
CHS	•	The honors-level course is not offered at CHS.							
EMHS	•	The honors-level course is not offered at EMHS.							

CHEMISTRY II			MCPS Course Code	44200	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Science (Chemistry)		SOL Test(s) Required	
Grade Level	11-12	Prerequisite(s)	Successful completion of Algebra II & Chemistry I.						
Course Description: This course is intended to extend the concepts, processes and principles of the Chemistry I course. Laboratory experiences are provided -- with emphasis on qualitative and quantitative techniques. Special areas of focus include forensics, organic chemistry, applications of stoichiometry, and the solubility product principle.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

AP CHEMISTRY				MCPS Course Code	4470A	High School Credits		2	Graduation Requirement	
						Weighted		✓		
						Credit Type		Science (Chemistry)		SOL Test(s) Required
Grade Level		10-12	Prerequisite(s)		Successful completion of Algebra II & Chemistry I.					
<b>Course Description:</b> The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Chemistry course. The course provides students with a college-level foundation to support future advanced course work in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. This course includes a minimum of 16 hands-on laboratory investigations (at least six of which are inquiry based).										
AHS	•									
BHS			This course is offered only as DE/AP Chemistry at BHS at this time.							
CHS			This course is offered only as DE/AP Chemistry at CHS at this time.							
EMHS										



DE/AP CHEMISTRY				MCPS Course Code	DE4470A	High School Credits		2	Graduation Requirement	✓
						Weighted		✓		
						Credit Type	Science (Chemistry)		SOL Test(s) Required	
Dual Enrolled	✓		NRCC Course Code(s)	CHM 111 & CHM 112	College Credits		6			
Grade Level		10-12	Prerequisite(s)		Successful completion of Algebra II & Chemistry I *					

**Course Description:** See course description for AP Chemistry (4470A).

This course is also based on NRCC syllabi for General Chemistry I and General Chemistry II. To meet NRCC requirements, the course explores the fundamental laws, theories, and mathematical concepts of chemistry.

**\* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see [pages 9-11](#) and [194-196](#)) in addition to successful completion of prerequisite courses.** This course may carry with it a fee to NRCC.


**NOTE: This course is designed primarily for science and engineering majors and requires a strong background in mathematics. Students must complete the CHM 111 portion of this course with a C or better in order to advance to the CHM 112 portion of this course**


AHS		This course is only offered as AP Chemistry at AHS at this time.
BHS	•	
CHS	•	
EMHS		

There are not two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC. **\* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see [pages 9-11](#) and [194-196](#)) in addition to successful completion of prerequisite courses.** This course may carry with it a fee to NRCC.

DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.

PHYSICS I			MCPS Course Code	45100	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Science (Physics)		SOL Test(s) Required	
Grade Level		10-12	Prerequisite(s)	Successful completion of Algebra II.					
<b>Course Description:</b> This course covers some of the introductory ideals in classical physics. Because of an emphasis in problem solving and using math to illustrate the concepts, math skills are particularly important. Specifically, the physics topics covered are as follows: motion of objects, collisions of objects, forces of nature, sound and light waves, basic optics, electrical circuits, thermodynamics, and modern physics. The laboratory aspect of class is heavily detail and discovery oriented.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

AP PHYSICS C: MECHANICS, ELECTRICITY & MAGNETISM				MCPS Course Code	4571A	High School Credits		2	Graduation Requirement	
						Weighted		✓		
						Credit Type	Science (Physics) Science Elective		SOL Test(s) Required	
Grade Level		10-12	Prerequisite(s)	Calculus or taking Calculus concurrently						
<p><b>AP Physics C: Mechanics</b> is a half-year course equivalent to a semester-long, introductory calculus-based college course. The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Physics C: Mechanics course. It covers kinematics; Newton’s laws of motion; work, energy, and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation.</p> <p><b>AP Physics C: Electricity and Magnetism</b> is a half-year course that follows <b>Physics C: Mechanics</b>. The content of this college-level course corresponds to the syllabus of the College Board Advanced Placement Program for the AP Physics C: Electricity and Magnetism course. It is equivalent to a semester-long, introductory calculus-based college physics course, especially appropriate for students planning to specialize or major in the physical sciences or engineering. The course explores topics such as electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism. Introductory differential and integral calculus is used throughout the course. The course includes a hands-on laboratory component comparable to a semester-long introductory college-level physics laboratory. Students ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress.</p>										
AHS										
BHS	•									
CHS										
EMHS										

DE/AP PHYSICS			AP	MCPS Course Code	DE4571A	High School Credits		2	Graduation Requirement		
						Weighted		✓			
						Credit Type	Science (Physics)	SOL Test(s) Required			
Dual Enrolled	✓			NRCC Course Code(s)	PHY 201 & PHY 202	College Credits		8			
Grade Level		10-12	Prerequisite(s)		Calculus or taking Calculus concurrently *						

**Course Description:** See course description for AP Physics (4571A).


This course is also based on NRCC syllabi for General College Physics I and General College Physics II. To meet NRCC requirements, the course teaches fundamental principles of physics. It covers mechanics, thermodynamics, wave phenomena, electricity and magnetism, and selected topics in modern physics. **Students must complete the PHY 201 portion of this course with a D or better in order to advance to the PHY 202 portion of this course.**

**\* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see [pages 9-11](#) and [194-196](#)) in addition to successful completion of prerequisite courses.** This course may carry with it a fee to NRCC.

AHS	•	
BHS		
CHS	•	
EMHS		

There are **not** two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC. **\* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see [pages 9-11](#) and [194-196](#)) in addition to successful completion of prerequisite courses.** This course may carry with it a fee to NRCC.

DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.

PRINCIPLES OF TECHNOLOGY I				MCPS Course Code	98110	High School Credits		1	Graduation Requirement	
						Weighted				
						Credit Type	CTE Elective		SOL Test(s) Required	
Grade Level	10-12	Prerequisite(s)	Algebra I							
<p><b>Course Description:</b> This course applies physics and mathematics concepts through a unified systems approach to develop a broad knowledge of the principles of underlying modern technical systems. Students study seven technical principles and how each plays an underlying role in the operation of mechanical, fluid, electrical, and thermal systems in technical equipment.</p> <p><b>Students who complete Principles of Technology I and Principles of Technology II may use these courses to satisfy one Physics credit and one CTE elective credit (98110 and 98120 constitute a CTE completer sequence). A student must complete both courses in the sequence in order to receive laboratory science (Physics) credit.</b></p>										
AHS	•									
BHS	•									
CHS	•									
EMHS	•									

PRINCIPLES OF TECHNOLOGY II / APPLIED PHYSICS			MCPS Course Code	98120	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Science (Physics)		SOL Test(s) Required
Grade Level	10-12	Prerequisite(s)	Principles of Technology I, Algebra I, and one other laboratory science course.					
<b>Course Description:</b> This course focuses on seven technical principles: momentum, waves, energy converters, transducers, radiation, optical systems, and time constants, emphasizing how each principle plays a unifying role in the operation of mechanical, fluid, electrical, and thermal systems in high-technology equipment. This "principles and systems" approach to studying these technical principles provides a foundation for further education and career flexibility as technology and technical systems advance. <b>Students who complete Principles of Technology I and Principles of Technology II may use these courses to satisfy one Physics credit and one CTE elective credit (98110 and 98120 constitute a CTE completer sequence). A student must complete both courses in the sequence in order to receive laboratory science (Physics) credit.</b>								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							

VIRGINIA SPACE COAST SCHOLARS (VSCS) VIRTUAL			MCPS Course Code	4703V	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type		SOL Test(s) Required		
Grade Level	10	Prerequisite(s)							
<b>Course Description:</b> The Virginia Space Coast Scholars (VSCS) is a program for High School Sophomores focusing on the science, engineering, and technology integral to current missions at NASA Wallops Flight Facility and the Mid-Atlantic Regional Spaceport. This dynamic (and FREE) program, designed by the Virginia Space Grant Consortium (VSGC), inspires students who possess technical and/or scientific interests and are motivated to learn about the many different opportunities that NASA offers. The program features two key elements. The first is a dynamic on-line science, technology, engineering, and mathematics (STEM) learning experience featuring five modules. Upon completion of the online program, top performing scholars may be invited to attend a seven-day residential Summer Academy at NASA Wallops Flight Facility on Wallops Island, VA, where scholars will learn first-hand from NASA professionals and their partners about the latest, cutting edge technologies and missions. <a href="http://vsgc.odu.edu/spacecoast/">http://vsgc.odu.edu/spacecoast/</a> <b>This course is only offered virtually.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

VIRGINIA AEROSPACE SCIENCE & TECHNOLOGY SCHOLARS PROGRAM (VASTS) VIRTUAL			MCPS Course Code	DE4701V	High School Credits		1	Graduation Requirement	
					Weighted		✓		
					Credit Type			SOL Test(s) Required	
Grade Level		11-12	Prerequisite(s)						
<p><b>Course Description:</b> The Virginia Aerospace Science and Technology Scholars (VASTS) program is an interactive on-line science, technology, engineering and mathematics learning experience, highlighted by a seven-day residential summer academy at NASA Langley Research Center in Hampton, Virginia. Students selected to participate in the program are immersed in NASA-related research through interaction with scientists, engineers and technologists. The program is a partnership between the Virginia Space Grant Consortium and NASA Langley Research Center with assistance from the Virginia Department of Education. NASA Johnson Space Center is providing the online learning modules. <a href="http://vsgc.odu.edu/vasts/">http://vsgc.odu.edu/vasts/</a></p> <ul style="list-style-type: none"><li>• <b>This course is only offered virtually.</b></li><li>• Students participating in the distance learning coursework will receive one (1) weighted science elective credit.</li><li>• Students may receive up to four (4) college credits, at no cost to them, from Thomas Nelson Community College depending upon their successful completion of the online course and Summer Academy program.</li><li>• While there is no charge for this course, any travel or internet expenses are the responsibility of the student.</li></ul>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

VIRGINIA EARTH SYSTEM SCIENCE SCHOLARS PROGRAM (VESSS) VIRTUAL			MCPS Course Code	DE4702V	High School Credits		1	Graduation Requirement	
Weighted					✓				
Credit Type							SOL Test(s) Required		
Grade Level	11-12	Prerequisite(s)							
<p><b>Course Description:</b> The Virginia Earth System Science Scholars (VESSS) program is an interactive on-line science, technology, engineering and mathematics learning experience, highlighted by a seven-day residential summer academy at NASA Langley Research Center in Hampton, Virginia. Students selected to participate in the program are immersed in NASA-related research through interaction with scientists, engineers and technologists. The program is a partnership between the Virginia Space Grant Consortium and NASA Langley Research Center with assistance from Hampton University. <a href="http://vsgc.odu.edu/vesss/">http://vsgc.odu.edu/vesss/</a></p> <ul style="list-style-type: none"><li>• <b>This course is only offered virtually</b></li><li>• Students participating in the distance learning coursework will receive one (1) weighted science elective credit.</li><li>• Students may receive up to four (4) college credits, at no cost to them, from Thomas Nelson Community College depending upon their successful completion of the online course and Summer Academy program.</li><li>• While there is no charge for this course, any travel or internet expenses are the responsibility of the student.</li></ul>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

# FINE ARTS ELECTIVES

ART FOUNDATIONS I			MCPS Course Code	91200	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Fine Arts		
Grade Level	9-12	Prerequisite(s)						
<b>Course Description:</b> This course is designed as an entry-level art class and is the prerequisite for the more advanced art classes. In this course, the student will explore art as it relates to history, to the environment and to his/her own personal experiences. There will be instruction in drawing, painting, ceramics, printmaking, and sculpture using a variety of both 2-D and 3-D media. Art styles and periods will be compared with an emphasis on developing a visual appreciation for one’s own art and for the art of others.								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							

ART II INTERMEDIATE			MCPS Course Code	91300	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Fine Arts		
Grade Level	9-12	Prerequisite(s)	Art I (Students who have had an art class prior to high school may take a placement test and present a portfolio to possibly qualify for a higher level class)					
<b>Course Description:</b> The focus of this course is for the student to obtain an understanding of art by incorporating the elements and principles of design in their work. Through the study and exploration of art, the student will be motivated to think about visual experiences in the past and present. Emphasis is placed on the further development of the student’s drawing and design skills through a variety of 2-D and 3-D media and is designed to expand the student’s knowledge of drawing, painting, sculpture, and ceramics while introducing jewelry making, graphics, and research into art history.								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							

ART III ADVANCED INTERMEDIATE			MCPS Course Code	91400	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Fine Arts		
Grade Level	10-12	Prerequisite(s)	Art II					
<b>Course Description:</b> Advanced Art is a course that follows successful completion of two (2) years of art foundations. (The instructor may make exceptions for students who have completed just 1 year and show both interest and talent.) Advanced students are allowed more time for pursuing individual projects and exploration of media and techniques. A more intense study of art history and visual problem solving will be made.								
AHS	•							
BHS		Students at BHS interested in taking Art III should consider taking Drawing, Painting, or Sculpture.						
CHS	•							
EMHS	•							

ART IV ADVANCED			MCPS Course Code	91450	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	11-12	Prerequisite(s)	Portfolio Review						
Course Description: The course involves intense concentration using advanced skills in their chosen media. Advanced critiques, historic comparisons, and independent research are included.									
AHS	•								
BHS		Students at BHS interested in taking Art IV should consider taking Drawing, Painting, or Sculpture.							
CHS	•								
EMHS	•								

ART V PORTFOLIO PREPARATION			MCPS Course Code	91470	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level		12	Prerequisite(s)	Portfolio Review or Teacher Recommendation					
Course Description: Having achieved training in basic knowledge and experience of two and/or three dimensional media, students will further develop higher level skills in art production esthetics and criticism. Students will join instructor in determining goals and expectations for projects and follow the normal exam procedures.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

PAINTING			MCPS Course Code	91401	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	10-12	Prerequisite(s)	Art I & Art II						
Course Description: This course follows successful completion of two (2) years of art foundations. (The instructor may make exceptions for students who show both interest and talent.) It is intended for advanced art students to have more time to pursue individual projects and exploration of painting techniques. A more intense study of art history and visual problem solving will be made.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

DRAWING			MCPS Course Code	91402	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	10-12	Prerequisite(s)	Art I & Art II						
Course Description: This course follows successful completion of two (2) years of art foundations. (The instructor may make exceptions for students who show both interest and talent.) It is intended for advanced art students to have more time to pursue individual projects and exploration of drawing techniques. A more intense study of art history and visual problem solving will be made.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

SCULPTURE			MCPS Course Code	91403	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Fine Arts		
Grade Level	10-12	Prerequisite(s)	Art I & Art II					
<b>Course Description:</b> This course follows successful completion of two (2) years of art foundations. (The instructor may make exceptions for students who show both interest and talent.) It is intended for advanced art students to have more time to pursue individual projects and exploration of sculpture techniques. A more intense study of art history and visual problem solving will be made.								
AHS								
BHS	•							
CHS	•							
EMHS								


CERAMICS I			MCPS Course Code	91750	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> This course is design as an entry-level art class with a focus on the investigation of Ceramics. Students will explore the process of hand building and wheel throwing (if supplies allow). There will be instruction in slab technique, coil technique, pinch method, glaze application, firing techniques, history of ceramics, and related artist studies. Art critiques will be held (verbal and written), to develop a visual appreciation for one's own art and for the art of others.									
AHS	•								
BHS	•								
CHS									
EMHS	•								


CERAMICS II			MCPS Course Code	91760	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Fine Arts		
Grade Level	10-12	Prerequisite(s)	Ceramics I					
<b>Course Description:</b> This course is a continuation of Ceramics I. The focus of this course is for the student to obtain a greater understanding and to increase their knowledge of Ceramics. Further practice will help to develop their hand building and wheel throwing techniques in the quest to become a master at the craft. Art History, historical Potters and Cultural Knowledge will be studied to further the depth of their understanding and enhance their mastery. Art critiques will be held (verbal and written), to develop a higher level of visual appreciation for one's own art and for the art of others.								
AHS	•							
BHS	•							
CHS								
EMHS	•							


CERAMICS III			MCPS Course Code	High School Credits		1	Graduation Requirement	
				Weighted				
				Credit Type	Fine Arts			
Grade Level	10-12	Prerequisite(s)	Ceramics II					
<b>Course Description:</b> This course is a continuation of Ceramics II, furthering students’ understanding and knowledge of Ceramics as well as learning advanced techniques.								
AHS	•							
BHS	•							
CHS								
EMHS	•							




PHOTOGRAPHY I			MCPS Course Code	91900	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Fine Arts		
Grade Level	9-12	Prerequisite(s)	Art I (required), Art 2 (recommended)					
<b>Course Description:</b> This course This course introduces the study of photography as an art medium with a focus on developing photographic compositions through manipulation of the fundamental processes of artistic expression. Student self-expression as a means of creative communication is emphasized throughout the course. Students will explore the history of photography, including significant movements, before learning and enhancing photo composition skills including image manipulation light effects, shutter, and aperture manipulation, and computer digital manipulation of color and black and white photographic images. Through the course, students will learn to make meaningful visual statements with an emphasis on personal creative expression to communicate ideas, feelings, or values related to the theme of a sense of place. Students will also engage in critiques of their photographic images, works of other students, and those by professional photographers for the purpose of reflecting on and refining their work. Students will be expected to demonstrate technical understanding and creativity through a variety of projects based on practical applications of the Elements of Art and Principles of Design. Students will develop and maintain a beginning portfolio for assessment and exhibition.								
AHS	•							
BHS								
CHS								
EMHS								

AP STUDIO ART 2D DESIGN				MCPS Course Code	9148A	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	Fine Arts		
Grade Level	11-12	Prerequisite(s)	Portfolio Review or Teacher Recommendation						
<b>Course Description:</b> The AP Studio Art Program enables highly motivated students to do college level work in art while still in high school and possibly get college credit. Having achieved training in basic knowledge and experience of two and/or three dimensional media, students will use visual problem solving skills to further explore Color and Design, Drawing, Sculpture and concentrate on 2-D design. In order to receive an AP weighted credit; the student must satisfactorily complete the AP portfolio. To possibly receive college credit, the student must submit their portfolio to the College board and pay the associated fee. Advanced Placement Studio Art requires a more significant commitment of time and effort than other art courses.									
AHS	•								
BHS	•								
CHS	•								
EMHS									

AP STUDIO ART 3D DESIGN				MCPS Course Code	9149A	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	Fine Arts		
Grade Level	11-12	Prerequisite(s)	Portfolio Review or Teacher Recommendation						
<b>Course Description:</b> The AP Studio Art Program enables highly motivated students to do college level work in art while still in high school and possibly get college credit. Having achieved training in basic knowledge and experience of two and/or three dimensional media, students will use visual problem solving skills to further explore Color and Design, Drawing, Sculpture and concentrate on 3-D design. In order to receive an AP weighted credit; the student must satisfactorily complete the AP portfolio. To possibly receive college credit, the student must submit their portfolio to the College Board and pay the associated fee. Advanced Placement Studio Art requires a more significant commitment of time and effort than other art courses.									
AHS	•								
BHS	•								
CHS	•								
EMHS									

AP STUDIO ART DRAWING PORTFOLIO				MCPS Course Code	9150A	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type	Fine Arts			
Grade Level	11-12	Prerequisite(s)	Teacher approval							
<b>Course Description:</b> The AP Studio Art Program enables highly motivated students to do college level work in art while still in high school and possibly get college credit. Having achieved training in basic knowledge and experience of two and/or three dimensional media, students will use visual problem solving skills to further explore Color and Design, Drawing, Sculpture and concentrate on their drawing portfolio. In order to receive an AP weighted credit; the student must satisfactorily complete the AP portfolio. To possibly receive college credit, the student must submit their portfolio to the College Board and pay the associated fee. Advanced Placement Studio Art requires a more significant commitment of time and effort than other art courses.										
AHS	•									
BHS	•									
CHS	•									
EMHS										

DE ART/MUSIC APPRECIATION VIRTUAL				MCPS Course Code	DE9197V	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	Fine Arts		
Dual Enrolled	✓			NRCC Course Code(s)	ART 100 & MUS 121	College Credits			6
Grade Level		11-12	Prerequisite(s)		See Below *				
<p><b>Course Description:</b> This course is based on NRCC syllabi for Art Appreciation and Music in Society. To meet NRCC requirements, the <b>ART 100</b> portion of the course introduces art from prehistoric times to the present day. It describes architectural styles, sculpture, photography, printmaking, and painting techniques, as well as highlights major artists and key contributions from global and Western culture. Content is covered chronologically and/or thematically. The <b>MUS 121</b> portion of the course explores the language of music through an introduction to basic elements, forms and styles across time. It acquaints students with composers' lives and influential creative individualities, discovering representative works and milestones in western society, as well as develops techniques for listening analytically and critically. The historical development and significance of art music are explored within the context of evolving societal structures.</p>									
<p><b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.</p>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

MUSIC HISTORY/LITERATURE			MCPS Course Code	92210	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level		Prerequisite(s)							
Course Description: This is a non-performance course for students interested in music. It requires no prerequisite and is designed for the student who does not plan to continue further study in music. It is not a prerequisite for other art or music courses. The student will study music as it relates to his/her personal experience and environment. Students will study all periods of music from Medieval to Rock. Instruction will include comparing styles and elements of music with an emphasis on developing listening skills.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

MUSIC THEORY			MCPS Course Code	92250	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	9-12	Prerequisite(s)	Must be able to read music.						
Course Description: This course provides students with an in-depth study of the materials and structures of music including: form and analysis, basic harmony and theory, and compositional techniques. Students will be given the opportunity to compose.									
AHS									
BHS	•								
CHS	•								
EMHS									

BEGINNING BAND			MCPS Course Code	92320	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> Open to students who are interested in beginning instrumental music instruction for wind and percussion instruments. Emphasis is placed on the basic elements of instrumental performance. This class is designed for those students who might want to continue their studies in music. The student is required to attend scheduled rehearsals and concert performances.									
AHS									
BHS									
CHS									
EMHS	•								

INTERMEDIATE BAND			MCPS Course Code	92330	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	9-12	Prerequisite(s)	Two years of instrumental music						
<b>Course Description:</b> Intermediate Band is a performing group composed of instrumental students. Membership in this group is open to all students who have at least two (2) years of instrumental experience or the recommendation of their middle school director.									
AHS									
BHS	•	Intermediate Band is a performing group composed mainly of 9th and 10th grade students. Students must have a minimum of two years of instrumental experience. Performances include three school concerts and district concert festival. Materials covered in concert band include concert literature, basic theory, and history of literature covered in the class.							
CHS	•								
EMHS	•	Intermediate Band is a performing group composed of instrumental students. Membership in this group is open to all students who have at least two (2) years of instrumental experience or the recommendation of their middle school director. Music will range widely in style from classics and serious concert band literature to modern popular music and marching music. Additional materials and topics such as minor scales, transposition, and additional music theory may be included as appropriate. Performances include several concerts each school year, various competitions, football games, parades, and other activities deemed necessary by the director. The student is required to attend scheduled rehearsals and concert performances. Extra rehearsals and individual practice is required.							

ADVANCED BAND			MCPS Course Code	92340	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	9-12	Prerequisite(s)							
Course Description:									
AHS	•	Advanced Band is a performing group composed of instrumental students. Membership in this group is open to all students who have at least two (2) years of instrumental experience or the recommendation of their middle school director. Music will range widely in style from classics and serious concert band literature to modern popular music and marching music. Additional materials and topics such as minor scales, transposition, and additional music theory may be included as appropriate. Performances include several concerts each school year, various competitions, football games, parades, and other activities deemed necessary by the director. The student is required to attend scheduled rehearsals and concert performances. Extra rehearsals and individual practice is required.							
BHS	•	<b>Prerequisite: Intermediate Band</b>							
CHS	•	<b>Prerequisite: Audition only.</b> Audition includes Major scales, Chromatic Scale, Prepared Piece and Sight Reading. Students may be admitted to this class only through a successful audition. More advanced musicianship techniques will be explored in a full ensemble setting. Students will be held to the highest standard of musical excellence. Participation and attendance is required for District Band Festival, the spring concert, and any other scheduled performance, as well as any scheduled after-school rehearsals.							
EMHS	•	Advanced Band is a performing group composed of instrumental students. Membership in this group is open to all students who have at least two (2) years of instrumental experience or the recommendation of their middle school director. Music will range widely in style from classics and serious concert band literature to modern popular music and marching music. Additional materials and topics such as minor scales, transposition, and additional music theory may be included as appropriate. Performances include several concerts each school year, various competitions, football games, parades, and other activities deemed necessary by the director. The student is required to attend scheduled rehearsals and concert performances. Extra rehearsals and individual practice is required.							

GUITAR			MCPS Course Code	92450	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> This course is for beginning guitar students. No prior experience is required. The course covers basic music reading, chords, musical terms and symbols.									
AHS	•								
BHS									
CHS									
EMHS	•								

SMALL INSTRUMENTAL ENSEMBLE / PERCUSSION TECHNIQUES			MCPS Course Code	92520	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	9-12	Prerequisite(s)	Percussion students OR band director's approval.						
<b>Course Description:</b> Percussion Techniques is offered during the spring term for students 9-12. Students enrolled in this class will be considered a member of the Symphonic Band and will be required to participate in all concerts and activities scheduled for Symphonic Band. Additionally, students will be required to participate in scheduled performances for percussion ensemble. Focus of this class will be on percussion techniques and performance.									
AHS	•								
BHS	•								
CHS	•								
EMHS									

SMALL ENSEMBLE / COLOR GUARD TECHNIQUES			MCPS Course Code	92960	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level		Prerequisite(s)	Percussion students OR band director's approval.						
<b>Course Description:</b> Color Guard Techniques is offered during the fall term for students 9-12. Students enrolled in this class will be considered a member of the Marching Band and will be required to participate in all football games, competitions, and activities scheduled for Marching Band. Focus of this class will be on color guard techniques and performance.									
AHS		<i>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</i>							
BHS									
CHS									
EMHS									

PIANO LAB I			MCPS Course Code	92550	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	9-12	Prerequisite(s)	Students should have no previous piano experience.						
<b>Course Description:</b> This is a beginning level course which will provide students the opportunity to learn piano technique and music reading. Students will acquire knowledge of elements of music as used in music reading and piano technique. Understanding of piano keyboard to acquire a positive attitude and continuing interest in music throughout high school and adult years will be stressed. Class size is limited by the number of available instruments.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

PIANO LAB II			MCPS Course Code	92551	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Fine Arts		
Grade Level	10-12	Prerequisite(s)	Students must have successfully completed Unit 8 in Piano Lab I with an “A” average.					
<b>Course Description:</b> Students will continue instruction of piano technique, music theory and music reading skills. Students may be accepted into the class by audition. Students auditioning must be able to perform at a comparable skill level to students completing through Unit 8 in Piano Lab I. Class size is limited by the number of available instruments.								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							

SMALL VOCAL ENSEMBLE / CHORALE			MCPS Course Code	92800	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	10-12	Prerequisite(s)							
<b>Course Description:</b> Chorale is a performance class whose membership is strictly limited to students in grades 10-12. Students will work on presenting quality public performances. Students will read and sing music with four to eight part harmony, demonstrating excellent vocal and choral techniques.									
AHS	•	No audition is necessary							
BHS	•	<b>Prerequisite: One year of Chorus/Band/or other vocal (musical) experience and successful audition.</b> Chorale is a performance class whose membership is strictly limited to students in grades 10-12. Students will work on presenting quality public performances. Students will read and sing music with four to eight part harmony, demonstrating excellent vocal and choral techniques. The group will learn music of a moderately difficult level chosen from all major periods. Performances will include two school concerts as well as other community invitations. These students are also eligible for district chorus. Auditions for chorale are held in the spring.							
CHS	•	<b>Prerequisite: Audition Only.</b> Chorale is a performance class in which students will work on presenting quality public performances. Students will read and sing music with four to eight-part harmonies, demonstrating excellent vocal and choral techniques. The group will perform music of a high difficulty level chosen from all major periods. Performances will include three school concerts as well as other community invitations.							
EMHS	•								

SMALL VOCAL ENSEMBLE / MADRIGALS			MCPS Course Code	92802	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Fine Arts		
Grade Level	10-12	Prerequisite(s)	One year of Chorus/Band/or other vocal (musical) experience and successful audition.					
<b>Course Description:</b> Madrigals is strictly limited to students in grades 10-12 by audition. Performances include at least two school concerts plus many community performances. The student will read and perform music in four to eight parts, using advanced vocal and choral techniques. Repertoire will include music mainly from the Renaissance Period. All students in this group are eligible to audition for Senior High District Chorus. Auditions for Madrigals are held in the Spring.								
AHS								
BHS	•							
CHS								
EMHS								

SMALL VOCAL ENSEMBLE / CHAMBER ENSEMBLE			MCPS Course Code	92803	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Fine Arts		
Grade Level	10-12	Prerequisite(s)	Audition Only					
<b>Course Description:</b> This vocal ensemble is open to students in grades 10-12 who have been selected by audition only. This is a performance class which will present quality public performances using the best styles of music literature from major periods emphasized. The student will sing and read music in four to eight-part harmony using good vocal and choral techniques. This class is limited to 20 students.								
AHS	•	No audition is necessary						
BHS								
CHS	•							
EMHS								

SMALL VOCAL ENSEMBLE II			MCPS Course Code	92804	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	10-12	Prerequisite(s)	Teacher Approval Required						
Course Description: Chorale is an extensive study and performance class whose membership is strictly limited to students in grades 10-12. Students will work on presenting quality public performances. Students will read and sing music with four to eight part harmony, demonstrating excellent vocal and choral techniques.									
AHS									
BHS									
CHS	•								
EMHS	•								

SMALL VOCAL ENSEMBLE / SWING CHOIR			MCPS Course Code	92805	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level		10-12	Prerequisite(s)						
Course Description:									
AHS									
BHS									
CHS									
EMHS	<ul style="list-style-type: none"><li></li></ul>	<p><b>Prerequisite: Prior experience in choral work – Audition may be required.</b> This course is open to students in grades nine through twelve. Ninth grade students should have had significant participation in choral work and pass an audition to ascertain the level of performance. Sight singing the full vocal range, utilizing Sol Fege, a technique for the advanced choral student, and music theory building on high school chorus experiences, will be studied. This performance choir studies literature from the four periods of music, as well as contemporary music, pop, jazz and Broadway. Choreography as appropriate for the pieces is included as a part of performance instruction. The class is performance oriented including three school concerts, community invitations to perform, and other opportunities for preparatory experiences. This class may require extra rehearsals.</p>							

INTERMEDIATE CHORUS / CONCERT CHOIR			MCPS Course Code	92850	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts			
Grade Level	9-12	Prerequisite(s)							
Course Description:									
AHS	•	<b>Concert Choir is a non-audition chorus open to any student in grades 9-12.</b> No prerequisite is required for the class other than a genuine desire to sing and learn the basic concepts of music. It is a performance class and will include at least two major concerts a year, occasional assembly programs and/or community events, and may require some extra rehearsals. The student will begin to learn to read music and will sing music using appropriate vocal/choral techniques. Repertoire will include music from all major periods, styles, and languages.							
BHS	•	<b>Concert Choir is a non-audition chorus open to any student in grades 9-12.</b> No prerequisite is required for the class other than a genuine desire to sing and learn the basic concepts of music. It is a performance class and will include at least two major concerts a year, occasional assembly programs and/or community events, and may require some extra rehearsals. The student will begin to learn to read music and will sing music using appropriate vocal/choral techniques. Repertoire will include music from all major periods, styles, and languages.							
CHS	•	<b>All students registering for choir will be placed in this class until after auditions.</b>							
EMHS	•	<b>Concert Choir is a non-audition chorus open to any student in grades 9-12.</b> No prerequisite is required for the class other than a genuine desire to sing and learn the basic concepts of music. It is a performance class and will include at least two major concerts a year, occasional assembly programs and/or community events, and may require some extra rehearsals. The student will begin to learn to read music and will sing music using appropriate vocal/choral techniques. Repertoire will include music from all major periods, styles, and languages.							

THEATRE I INTRODUCTION TO THEATRE			MCPS Course Code	14100	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts		SOL Test(s) Required	
Grade Level		9-12	Prerequisite(s)	An enthusiasm for performance.					
<b>Course Description:</b> The standards for Theatre Arts I enable students to participate in a creative processes of creating, refining, producing, and performing theatre. Students will analyze, interpret, and evaluate dramatic literature and theatrical works. The course emphasizes foundational concepts, ensemble work, and skill development and provides theatrical opportunities for students to determine areas of personal interest.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								



THEATRE II DRAMATIC LITERATURE & THEATRE HISTORY			MCPS Course Code	14200	High School Credits		1	Graduation Requirement	
Weighted									
Credit Type		Fine Arts			SOL Test(s) Required				
Grade Level	10-12	Prerequisite(s)	Theatre I or Teacher Approval (based on student's experience)						
<b>Course Description:</b> The standards for Theatre Arts II help students make use of and build upon the concepts learned and skills acquired in Theatre Arts I. Through various modes of expression and performance, students investigate dramatic literature, theatrical styles, and historical periods. They study and respond to a variety of theatrical experiences that refine their communicative, collaborative, analytical, interpretive, and problem-solving skills. Students expand their artistic abilities by examining a variety of creative and technical roles in performance and production.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

THEATRE III INTERMEDIATE ACTING & PLAYWRITING			MCPS Course Code	14230	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts		SOL Test(s) Required	
Grade Level	11-12	Prerequisite(s)	Theatre I & II or Teacher Approval (based on student's experience)						
<b>Course Description:</b> The standards for Theatre Arts II help students make use of and build upon the concepts learned and skills acquired in Theatre Arts I. Through various modes of expression and performance, students investigate dramatic literature, theatrical styles, and historical periods. They study and respond to a variety of theatrical experiences that refine their communicative, collaborative, analytical, interpretive, and problem-solving skills. Students expand their artistic abilities by examining a variety of creative and technical roles in performance and production.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

THEATRE IV ADVANCED ACTING & DIRECTING			MCPS Course Code	14300	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Fine Arts		SOL Test(s) Required
Grade Level		11-12	Prerequisite(s)	Theatre III or Teacher Approval (based on student’s experience)				
<b>Course Description:</b> The standards for Theatre Arts IV help students refine the concepts learned and skills acquired in Theatre Arts III while reinforcing the principles learned in Theatre Arts I and II. Through research and inquiry of theatre topics of personal interest, students develop and refine creative choices for performance, production, and direction. They study and respond to a variety of theatrical experiences, applying their critical thinking skills. Students develop and showcase leadership skills involving communication, problem solving, and collaboration to achieve unified productions.								
AHS								
BHS	•							
CHS	•							
EMHS								

TECHNICAL THEATRE I			MCPS Course Code	14350	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts		SOL Test(s) Required	
Grade Level	10-12	Prerequisite(s)	None (Teacher Approval based on student's experience)						
Course Description: The standards for Technical Theatre help students apply and expand their knowledge of theatre design, production, and management. Students develop problem-solving, communication, organizational, and management skills. Drawing on fine arts and other disciplines, they work individually and collaboratively to explore the interrelated components of design, production, and management. Students practice safe operating procedures, including the care, maintenance, and storage of tools, materials, and equipment.									
AHS									
BHS	•								
CHS									
EMHS									

TECHNICAL THEATRE II			MCPS Course Code	14360	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts		SOL Test(s) Required	
Grade Level	10-12	Prerequisite(s)	Technical Theatre I						
Course Description: This course is a continuation of Technical Theatre I, providing students with further study of set design/construction, lighting design, sound effects, theater acoustics, scene painting, property management, costume design, stage organization, technical direction and production, and the use of computer applications to support these functions. Students will apply artistic, technical, and dramatic principles, as well as design techniques as tools to communicate dramatic information, ideas, moods, and feelings.									
AHS									
BHS	•								
CHS									
EMHS									

MUSICAL THEATRE			MCPS Course Code	14480	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts		SOL Test(s) Required	
Grade Level	10-12	Prerequisite(s)	Teacher Approval						
Course Description: This course expands theatre offerings by allowing students to develop the theatrical, dance, and vocal skills they need to be successful in musical theatre. This course is for students who want the musical experience and expertise rather than focusing on acting. <b>This course may be used to fulfill the fine arts requirement.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS									

STUDIO THEATRE			MCPS Course Code	14310	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Fine Arts		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	Audition Only						
Course Description: This course is for students participating in the VHSL One Act Competition.									
AHS									
BHS	•								
CHS									
EMHS									

# CAREER & TECHNICAL EDUCATION ELECTIVES

## Corps of Cadets

CORPS OF CADETS I			MCPS Course Code	79131 (Part 1) 79132 (Part 2)	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> This course focuses on the development of leadership skills and communication skills, service, patriotism, discipline, physical training, and teamwork, as well as includes the fundamentals of military science. Students will also learn self-reliance and the importance of overcoming challenges. Classes will meet daily, and students wear uniforms once a week. In addition to classroom instruction, this course will include military training in activities such as marching and drilling exercises and other physical training activities. Optional after school activities include color guard, drill team, community service, and marksmanship. Junior Corps of Cadets is not affiliated with any specific branch of the U.S. military and does not require a commitment to the armed services after graduation.									
AHS	•	Corps of Cadets is offered on a semester basis. Classes will meet for 90 minutes every day for one semester. <b>Students may choose to take the course for one semester (Part 1) or two semesters (Parts 1 &amp; 2).</b> Only one semester is required to move on to the next level course the following school year.							
BHS	•								
CHS	•								
EMHS	•								

CORPS OF CADETS II			MCPS Course Code	79161 (Part 1) 79162 (Part 2)	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	10-12	Prerequisite(s)	Corps of Cadets I						
<b>Course Description:</b> This course focuses on the development of leadership skills and communication skills, service, patriotism, discipline, physical training, and teamwork, as well as includes the fundamentals of military science. In Corps of Cadets II students are expected to take on a leadership role and be a model for Corps of Cadets I students. Corps of Cadets II students will be responsible for teaching skills and lesson to Corps of Cadet I students with the full support and oversight of the classroom instructor. Corps of Cadets is not affiliated with any specific branch of the U.S. military and does not require a commitment to the armed services after graduation.									
AHS	•	Corps of Cadets is offered on a semester basis. Classes will meet for 90 minutes every day for one semester. Students may choose to take the course for one semester or two semesters. Only one semester is required to move on to the next level course the following school year.							
BHS	•								
CHS	•								
EMHS	•								

CORPS OF CADETS III			MCPS Course Code	79181 (Part 1) 79182 (Part 2)	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	11-12	Prerequisite(s)	Corps of Cadets II						
<b>Course Description:</b> This course focuses on the development of leadership skills and communication skills, service, patriotism, discipline, physical training, and teamwork, as well as includes the fundamentals of military science. In Corps of Cadets III students begin to take on additional leadership roles including leading and teaching students in the Corps of Cadets I course with the full support and oversight of the classroom instructor. Corps of Cadets is not affiliated with any specific branch of the U.S. military and does not require a commitment to the armed services after graduation.									
AHS	•	Corps of Cadets is offered on a semester basis. Classes will meet for 90 minutes every day for one semester. Students may choose to take the course for one semester or two semesters. Only one semester is required to move on to the next level course the following school year.							
BHS	•								
CHS	•								
EMHS	•								

CORPS OF CADETS IV			MCPS Course Code	79201 (Part 1) 79202 (Part 2)	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	12	Prerequisite(s)	Corps of Cadets III						
<b>Course Description:</b> This course focuses on the development of leadership skills and communication skills, service, patriotism, discipline, physical training, and teamwork, as well as includes the fundamentals of military science. In Corps of Cadets III students begin to take on additional leadership roles including leading and teaching students in the Corps of Cadets I course with the full support and oversight of the classroom instructor. Corps of Cadets is not affiliated with any specific branch of the U.S. military and does not require a commitment to the armed services after graduation.									
AHS	•	Corps of Cadets is offered on a semester basis. Classes will meet for 90 minutes every day for one semester. Students may choose to take the course for one semester or two semesters. Only one semester is required to move on to the next level course the following school year.							
BHS	•								
CHS	•								
EMHS	•								

# Agriculture

INTRODUCTION TO PLANT SYSTEMS			MCPS Course Code	80070	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	9-10	Prerequisite(s)							
<b>Course Description:</b> Students develop competencies in each of the major areas of the Plant Systems career pathway including applied botany, plant propagation, plant care and selection. Instructional content also includes an introduction to the various divisions of the plant systems industry. Students learn agricultural mechanics applicable to plant systems. As with all agriculture courses, students will be exposed to principles of leadership and opportunities within student organizations along with Supervised Agricultural Experiences opportunities. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

HORTICULTURAL SCIENCE & PRACTICES			MCPS Course Code	80340	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	10-12	Prerequisite(s)							
Course Description: In this course, students develop the necessary knowledge, skills, habits, and attitudes for entry-level employment and advancement in areas such as floriculture, landscape design, greenhouse operation, and nursery plant production. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

GREENHOUSE PLANT PRODUCTION & MANAGEMENT			MCPS Course Code	80350	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	9-12	Prerequisite(s)	Horticulture Sciences & Practices						
Course Description: Instruction is provided in growing greenhouse crops; producing and maintaining turf grass; and operating a flower shop and garden center. The student will have the opportunity to take the certification tests for Commercial Pesticide Applicator's license and Greenhouse Grower's license. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS									
BHS	•								
CHS									
EMHS	•								

FLORICULTURE			MCPS Course Code	80380	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	CTE	CTE Credential Test(s) May Be Required	
Grade Level	9-12	Prerequisite(s)						
<b>Course Description:</b> This course will help develop the necessary knowledge, skills, habits, and attitudes for entry-level positions in floriculture industries. Students will receive instruction and have hands-on activities in floral design, flower production, selling and shipping flowers, and floral shop management. <b>VDOE Maximum Section Enrollment Applies.</b>								
AHS								
BHS								
CHS	•							
EMHS	•							

FLORAL DESIGN I			MCPS Course Code	80550	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	10-12	Prerequisite(s)							
<b>Course Description:</b> Students learn design and display of floral arrangements, marketing of floral items and construction of popular arrangements used in retail floriculture. Students will learn to identify floral material and supplies commonly found in floral shops, as well as care and handling of fresh flowers.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

LANDSCAPING I			MCPS Course Code	80360	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	10-12	Prerequisite(s)							
Course Description: Landscaping is designed as an occupational preparation course. The horticulture program assists students in developing the necessary knowledge, skills, habits, and attitudes for entry-level employment and advancement in areas such as floriculture, landscape design, greenhouse operations, nursery plant production and turf management. VDOE Maximum Section Enrollment Applies.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

LANDSCAPING II			MCPS Course Code	80390	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	11-12	Prerequisite(s)	Landscaping I						
Course Description: In this course, students examine contemporary garden design from a historical perspective. Commercial and high-end residential landscape designs are developed that incorporate a wide range of specialty garden styles. Landscape projects are approached from an entrepreneurial aspect. VDOE Maximum Section Enrollment Applies.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

INTRODUCTION TO ANIMAL SYSTEMS			MCPS Course Code	80080	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	9-10	Prerequisite(s)							
<b>Course Description:</b> Students develop competency in each of the major areas of the animal systems career pathway including animal nutrition, reproduction, breeding, care, management, and safety. Students also learn agricultural mechanics skills applicable to animal systems. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•								
BHS									
CHS	•								
EMHS									

SMALL ANIMAL CARE			MCPS Course Code	80830	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	9-12	Prerequisite(s)							
Course Description: Students will learn how to care and manage small animals, focusing on instructional areas in animal health, nutrition, management, reproduction, evaluation, training, and when applicable, showmanship. Course content also includes instruction in the tools, equipment, and facilities for small animal care and provides activities to foster business management and leadership development. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

VETERINARY SCIENCE			MCPS Course Code	80880	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	10-12	Prerequisite(s)	Small Animal Care						
Course Description: This course covers the detailed anatomy of animals, animal first aid and CPR, medical terminology and pathology. It will also include research of the animal care industry, laboratory procedures, nutrition, and veterinary office management. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

EQUINE MANAGEMENT & PRODUCTION			MCPS Course Code	80800	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> In this course students learn to care for and manage horses. Equine health, nutrition, reproduction, training, evaluation and showmanship are the major instructional areas. Course content also includes instruction in tools, equipment, and facilities for equine enterprises. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

INTRODUCTION TO NATURAL RESOURCES			MCPS Course Code	80400	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> Students develop skills and knowledge to be good stewards of their natural environment. This includes knowledge of tree identification and forest measurement and management, Virginia fish and wildlife management, water conservation, soil properties, pollution control and the general preservation of natural resources. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								



FISHERIES & WILDLIFE MANAGEMENT			MCPS Course Code	80410	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	CTE	CTE Credential Test(s) May Be Required	
Grade Level	9-12	Prerequisite(s)	Introduction to Natural Resources					
Course Description: The Fisheries and Wildlife Management course offers instruction in identification and management of wildlife and aquatics and of their habitats. Content addressing the issues related to endangered species and organizations that protect fisheries and wildlife is also included. <b>VDOE Maximum Section Enrollment Applies.</b>								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							


SMALL ENGINE REPAIR I			MCPS Course Code	80820	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE	CTE Credential Test(s) May Be Required		
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> This course offers an intensive study of the operation, maintenance, and repair of small gasoline and diesel engines. Instructional topics include principles of operation of gasoline and diesel engines, tune-up and maintenance procedures, and disassembly, overhaul, and reassembly. Instruction may also include the operation of two cycle and four-cycle engines commonly found on lawn mowers, garden tractors, snow blowers, rotary tillers, chainsaws, and other equipment. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ADVANCED SMALL ENGINES REPAIR			MCPS Course Code	80821	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	CTE	CTE Credential Test(s) May Be Required	
Grade Level	10-12	Prerequisite(s)	Small Engines Repair					
<b>Course Description:</b> The Small Engine Repair II course will build upon basic skills taught in Small Engine Repair I. The student will explore and discuss in detail more advanced engine theory, including clearances, measurements, and adjustments. The students will also learn and master the Part Smart computer program, which is the industry’s standard software used to order and inventory small engine parts. <b>VDOE Maximum Section Enrollment Applies.</b>								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							

# Business & Information Technology (IT)

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BUSINESS LAW			MCPS Course Code	61310	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	CTE		
Grade Level	10-12	Prerequisite(s)						
Course Description: Students examine the foundations of the American legal system. They explore economic and social concepts as they relate to legal principles and to business and personal law.								
AHS								
BHS	•							
CHS	•							
EMHS	•							


DE BUSINESS MANAGEMENT				MCPS Course Code	DE6135	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type	CTE			
Dual Enrolled	✓			NRCC Course Code(s)	BUS 100	College Credits			3	CTE Credential Test(s) May Be Required
Grade Level		11-12	Prerequisite(s)	See Below *						
<b>Course Description:</b> This course is based on the NRCC syllabus for BUS 100 Introduction to Business. To meet NRCC requirements, students in this course study basic management concepts and leadership styles as they explore business ownership, planning, operations, marketing, finance, economics, communications, the global marketplace, and human relations.										
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b>										
BUSINESS MANAGEMENT		61350	This course may be taken by students who are not eligible to take a dual enrolled course							
AHS										
BHS	•	Only the 61350 course is offered at BHS (NOT DE).								
CHS	•	Only the 61350 course is offered at CHS (NOT DE).								
EMHS	•	Only the 61350 course is offered at EMHS (NOT DE).								



ACCOUNTING			MCPS Course Code	63200	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	10-12	Prerequisite(s)							
Course Description: Students study the basic principles, concepts, and practices of the accounting cycle. Topics covered include analyzing transactions, journalizing and posting entries, preparing payroll records and financial statements, and managing cash systems. Ethics and professional conduct are emphasized.									
AHS									
BHS	•								
CHS	•								
EMHS									


ADVANCED ACCOUNTING			MCPS Course Code	63210	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	CTE		
Grade Level	11-12	Prerequisite(s)	Accounting					
Course Description: Students will continue to gain in-depth knowledge of more advanced accounting procedures used to solve business problems and make financial decisions. A major area of concentration is in learning an Automated Accounting and QuickBooks Pro computer programs.								
AHS								
BHS	•							
CHS	•							
EMHS								


OFFICE ADMINISTRATION			MCPS Course Code	66210	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	10-12	Prerequisite(s)							
Course Description: Students enhance word processing and communication skills as they develop competencies needed by administrative support professionals. Students study office procedures such as information processing, telecommunications, electronic record management, and financial records management.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									


DE COMPUTER INFORMATION SYSTEMS				MCPS Course Code	DE6612	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type		CTE	
Dual Enrolled	✓		NRCC Course Code(s)	ITE 152	College Credits		3		
Grade Level		9-12	Prerequisite(s)	See Below *					
<b>Course Description:</b> This course is based on the NRCC syllabus for Introduction to Digital and Information Literacy and Computer Applications. To meet NRCC requirements, students in this course will develop understanding of digital and information literacy. This course introduces basic computer concepts in hardware, software, cyber, cloud, database, and operating systems. Includes hands-on experience developing word processing, spreadsheet and presentation documents. Evaluates the reliability of sources. Covers creating a simple web page. Examines topics such as social, legal, and ethical issues.									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.									
DE COMPUTER INFORMATION SYSTEMS (VIRTUAL)		DE6612V	Same course as DE6612 except it is offered virtually. Students may complete the work outside of school hours or they may request a Study Hall through their School Counselor. Computer Information Systems is a required course to complete the NRCC AAS – Computer Science Specialization degree pathway.						
COMPUTER INFORMATION SYSTEMS		66120	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS	•								
BHS	•								
CHS	•								
EMHS	•								


ADVANCED COMPUTER INFORMATION SYSTEMS				MCPS Course Code	66130	High School Credits		1	Graduation Requirement	
						Weighted				
						Credit Type	CTE			
Grade Level		10-12	Prerequisite(s)	Computer Information Systems						
Course Description: Students apply problem-solving skills to real-life situations through advanced integrated software applications, including printed, electronic, and Web publications.										
AHS	•									
BHS										
CHS										
EMHS										



DE DESIGN, MULTIMEDIA & WEB TECHNOLOGIES				MCPS Course Code	DE6630	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	CTE		
Dual Enrolled	✓		NRCC Course Code(s)	ITD 110	College Credits		3	CTE Credential Test(s) May Be Required	
Grade Level		11-12	Prerequisite(s)	See Below *					
<p><b>Course Description:</b> This course is based on the NRCC syllabus for ITD 110 Web Page Design. To meet NRCC requirements, students work with sophisticated software to develop web sites and multimedia presentations. The software package that will be explored in this course includes Adobe Photoshop, Dreamweaver, Flash, and Fireworks. HTML/HXTML is also introduced as a means of developing web sites.</p> <p>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</p>									
DESIGN, MULTIMEDIA & WEB TECHNOLOGIES		66300	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS	•	Both the 66300 course and the DE6630 course are offered at AHS.							
BHS	•	Only the 6630 (Non-DE) course is offered at BHS.							
CHS	•	Only the DE6630 course is offered at CHS.							
EMHS									



ADVANCED DESIGN, MULTIMEDIA & WEB TECHNOLOGIES				MCPS Course Code	66310	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
						Weighted				
						Credit Type	CTE			
Grade Level	11-12	Prerequisite(s)	Design, Multimedia, and Web Technologies							
<b>Course Description:</b> Students develop skills in the use of desktop publishing software to create sophisticated printed and electronic publications. Students will work with Adobe InDesign, Photoshop and Illustrator. Software to create professional print materials and content. Students may also work with Dreamweaver, Photoshop, Fireworks, Flash and HTML to design and maintain a website.										
AHS	•									
BHS										
CHS	•									
EMHS										



INTRODUCTION TO INTERACTIVE PROGRAMMING				MCPS Course Code	66400	High School Credits		1	Graduation Requirement
						Weighted			
						Credit Type	CTE		
Grade Level	11-12	Prerequisite(s)							
<b>Course Description:</b> Students in the Programming course explore programming concepts, use algorithmic procedures, implement programming procedures with one or more standard languages, and master programming fundamentals. Coding is used throughout the course. Graphical user interfaces may be used as students design and develop interactive multimedia applications, including game programs. In addition, students employ HTML or JavaScript to create Web pages. Students develop their employability skills through a variety of activities.									
AHS	•								
BHS									
CHS	•								
EMHS									



ADVANCED PROGRAMMING				MCPS Course Code	66410	High School Credits		1	Graduation Requirement	
						Weighted				
						Credit Type	CTE			
Grade Level		11-12	Prerequisite(s)		Introduction to Interactive Programming					
<b>Course Description:</b> Building on a foundation of programming skills, students will use object-oriented programming to develop applications for Windows, database, multimedia, games, mobile, and/or Web environments. Students will have the opportunity to explore and create applications related to the information technology and game design industries. 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.										
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.								
BHS										
CHS										
EMHS										

INFORMATION TECHNOLOGY (IT) FUNDAMENTALS				MCPS Course Code	66700	High School Credits		1	Graduation Requirement	
						Weighted				
						Credit Type	CTE			
Grade Level		9-10	Prerequisite(s)							
Course Description: Information Technology (IT) Fundamentals introduces the essential technical and professional skills required for students to pursue programs leading to professional careers and IT certifications.										
AHS										
BHS										
CHS	•									
EMHS										



DE CYBERSECURITY I				MCPS Course Code	DE6302	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	CTE		
Dual Enrolled	✓		NRCC Course Code(s)	ITN 106	College Credits		2	CTE Credential Test(s) May Be Required	
Grade Level		9-12	Prerequisite(s)		See Below *				
<p><b>Course Description:</b> Cybersecurity affects every individual, organization, and nation. This course focuses on the evolving and all-pervasive technological environment with an emphasis on securing personal, organizational, and national information. Students will be introduced to the principles of cybersecurity, explore emerging technologies, examine threats and protective measures, and investigate the diverse high-skill, high-wage, and high-demand career opportunities in the field of cybersecurity.</p> <p><b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b></p>									
CYBERSECURITY I			63020	This course may be taken by students who are not eligible to take a dual enrolled course					
AHS	•	Only 63020 is offered at AHS (Non-DE)							
BHS	•								
CHS	•								
EMHS	•	Only 63020 is offered at EMHS (Non-DE)							



DE CYBERSECURITY II				MCPS Course Code	DE6304	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type		CTE	
Dual Enrolled	✓		NRCC Course Code(s)	ITN 101	College Credits	3			
Grade Level			9-12	Prerequisite(s)		See Below *			
<p><b>Course Description:</b> Cybersecurity Software Operations is designed to teach many aspects of computer support and network administration. Students learn networking concepts, from usage to components, and create peer-to-peer network systems and client server networks. Students learn how to install and configure network cards and connect them to networks; to install the operating systems; to create, set up, and manage accounts; to load software; and to establish, implement, and maintain network integrity security plans. This course may cover software-based network operating systems, such as Windows Server or Linux, to prepare students with a foundation in computer network administration.</p>									
<p><b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b></p>									
CYBERSECURITY II		63040	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS	•	Only 63020 is offered at AHS (Non-DE)							
BHS	•								
CHS	•								
EMHS	•	Only 63020 is offered at EMHS (Non-DE)							

DE CYBERSECURITY III				MCPS Course Code	DE6306	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	CTE		
Dual Enrolled	✓		NRCC Course Code(s)	ITN 261	College Credits		3	CTE Credential Test(s) May Be Required	
Grade Level		10-12	Prerequisite(s)	See Below *					
<p><b>Course Description:</b> Cybersecurity Software Operations, Advanced continues to teach aspects of network administration, focusing on the management and support of network users and systems. The topics covered include understanding the responsibilities of computer professionals, training end users, evaluating new technology, developing system policies, troubleshooting workstations, managing network services and protocols, and effectively using email and business communications. Students learn communication protocols, troubleshooting techniques for systems and client-server networks, website management, and other advanced networking topics. Techniques that are used to install operating systems, set up and manage accounts, load software, and create and implement security plans are taught. This course may provide instruction about software-based network operating systems, such as Windows Server or Linux. Instruction will emphasize preparation for industry certification.</p>									
<p>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</p>									
CYBERSECURITY III		63060	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS	•	Only 63020 is offered at AHS (Non-DE)							
BHS	•								
CHS	•								
EMHS	•	Only 63020 is offered at EMHS (Non-DE)							

DE COMPUTER SCIENCE PROGRAMMING 1 (VIRTUAL)				MCPS Course Code	DE6640V	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type	CTE			
Dual Enrolled	✓		NRCC Course Code(s)	CSC 221	College Credits	3				
Grade Level		9-12	Prerequisite(s)		DE6612 DE Computer Information Systems (CSC 110)					
<b>Course Description:</b> This course is based on the NRCC syllabus for CSC 221 Introduction to Problem Solving and Programming. Introduces problem solving and implementation of solutions using a high-level programming language in a structured programming environment. Includes concepts and practice of structured programming, problem-solving, top-down design of algorithms, a high-level programming language syntax, control structures, arrays, and an introduction into object-oriented programming.										
AHS	•									
BHS	•									
CHS	•									
EMHS	•									



DE COMPUTER SCIENCE PROGRAMMING 2 (VIRTUAL)				MCPS Course Code	DE6641V	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	CTE		
Dual Enrolled	✓		NRCC Course Code(s)	CSC 222	College Credits		4	CTE Credential Test(s) May Be Required	
Grade Level		9-12	Prerequisite(s)		DE6640V DE Computer Science Programming 1 (Virtual)				
Course Description: This course is based on the NRCC syllabus for CSC 222 Object-Oriented Programming. introduces the concepts and techniques of object-oriented programming to students with a background in procedural programming and problem solving. Uses a high-level computer language to illustrate and implement the topics.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

<b>DE COMPUTER SCIENCE PROGRAMMING 3 (VIRTUAL)</b>				<b>MCPS Course Code</b>	DE6642V	<b>High School Credits</b>		1	<b>Graduation Requirement</b>	<b>CTE Credential Test(s) May Be Required</b>
						<b>Weighted</b>		✓		
						<b>Credit Type</b>	CTE			
<b>Dual Enrolled</b>	✓		<b>NRCC Course Code(s)</b>	CSC 223	<b>College Credits</b>		4			
<b>Grade Level</b>		9-12	<b>Prerequisite(s)</b>		DE6641V DE Computer Science Programming 2 (Virtual)					
<b>Course Description:</b> This course is based on the NRCC syllabus for CSC 223 Data Structures and Analysis of Algorithms. Explores and contrasts data structures, algorithms for manipulating data structures, and their use and appropriateness in writing efficient real-world programming applications. Investigates implementations of different data structures for efficient searching, sorting, and other transformer operations.										
<b>AHS</b>	•									
<b>BHS</b>	•									
<b>CHS</b>	•									
<b>EMHS</b>	•									


# Marketing


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PRINCIPLES OF BUSINESS & MARKETING			MCPS Course Code	61150	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	9-10	Prerequisite(s)	None						
Course Description: 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.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS	•								
CHS									
EMHS	•								

MARKETING EXPLORATIONS			MCPS Course Code	81100	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	CTE		CTE Credential Test(s) May Be Required
Grade Level	9-10	Prerequisite(s)						
<b>Course Description:</b> In this course students will explore the world of marketing to understand its importance in today’s society. Students will develop skills related to interpersonal communication, self-presentation, economics, marketing, sales, employability, career discovery, promotion, and ethical decision-making—all essential skills in any career. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							

MARKETING			MCPS Course Code	81200	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	CTE		CTE Credential Test(s) May Be Required
Grade Level	10-12	Prerequisite(s)						
<b>Course Description:</b> Students are introduced to functions and foundations involved in the marketing of goods, services, and ideas and achieve skills necessary for successful marketing employment. Students study risk management, selling, promotion, pricing, purchasing, marketing-information management, product/service planning, distribution, and financing. <b>Completion of 81200 and DE8130 is required to receive dual enrolled credit for MKT 100 at NRCC.</b>								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							

DE DIGITAL & SOCIAL MEDIA MARKETING			MCPS Course Code	DE8125	High School Credits	1	Graduation Requirement
					Weighted	✓	
					Credit Type	CTE	
Dual Enrolled	✓		NRCC Course Code(s)	MKT 282	College Credits	3	CTE Credential Test(s) May Be Required
Grade Level		11-12	Prerequisite(s)	See Below *			
<p><b>Course Description:</b> This course is based on the NRCC syllabus for MKT 282, Principles of E-Commerce. To meet NRCC requirements, students receive an introduction to marketing functions and the business plan and 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. They explore ethical, legal, and 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.</p> <p><b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <u>pages 9-11</u> and <u>194-196</u>) in addition to successful completion of prerequisite courses.</b></p> <p><i>This course may carry with it a fee to NRCC.</i></p>							
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.					
BHS							
CHS							
EMHS							

DE ADVANCED MARKETING			MCPS Course Code	DE8130	High School Credits	1	Graduation Requirement
					Weighted	✓	
					Credit Type	CTE	
Dual Enrolled	✓		NRCC Course Code(s)	MKT 100	College Credits	3	CTE Credential Test(s) May Be Required
Grade Level	11-12	Prerequisite(s)	Marketing *				
<p><b>Course Description:</b> This course is based on the NRCC syllabus for MKT 100, Principles of Marketing. To meet NRCC requirements, students continue to gain knowledge of marketing functions and foundations as they relate to supervisory and management responsibilities and develop skills needed for advancement. They develop skills for supervisory positions and/or for continuing education in a marketing-related field.</p> <p><b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b></p> <p>This course may carry with it a fee to NRCC.</p> <p><b>NOTE: Completion of 81200 and is required to receive dual enrolled credit for NRCC's MKT 100.</b></p>							
ADVANCED MARKETING	81300	This course may be taken by students who are not eligible to take a dual enrolled course					
AHS							
BHS	•	The DE8130 course will be offered at BHS based on the availability of qualified staff.					
CHS	•	Only the 81300 course is offered at CHS (NOT DE)					
EMHS	•	Only the 81300 course is offered at EMHS (NOT DE)					

MARKETING MANAGEMENT			MCPS Course Code	81320	High School Credits		1	Graduation Requirement
					Weighted		✓	
					Credit Type	CTE		CTE Credential Test(s) May Be Required
Grade Level	12	Prerequisite(s)						
<b>Course Description:</b> This course is designed for high school seniors who plan to attend college with a concentration in marketing, business, or management and/or who have plans to manage or own a business. Students will be exposed to all aspects of marketing and management. These skills will translate to small and large businesses, nonprofit organizations, service industries, and government agencies. This course will prepare students for a College Board CLEP examination to earn college credit at some accredited colleges and universities across the country.								
AHS								
BHS	•							
CHS	•							
EMHS	•							

ADVERTISING DESIGN I			MCPS Course Code	85700	High School Credits		1	Graduation Requirement	CTE Credential Tests(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	10-11	Prerequisite(s)							
<b>Course Description:</b> Advertising Design students will learn the basics of graphic design and the advertising industry. Ad Design explores the elements and principles of design in a project-based environment. The students will use creativity and project planning skills as they develop a professional portfolio.									
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
BHS	•								
CHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
EMHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							


ADVERTISING DESIGN II			MCPS Course Code	85710	High School Credits		2	Graduation Requirement	
					Weighted				
					Credit Type	CTE			
Grade Level		11-12	Prerequisite(s)	Advertising Design I					
Course Description: Continuation of Advertising Design I.									
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
BHS	•								
CHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
EMHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							

GRAPHICS IMAGING TECHNOLOGY I			MCPS Course Code	86600	High School Credits		1	Graduation Requirement	CTE Credential Tests(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	9-11	Prerequisite(s)							
<b>Course Description:</b> Graphic Imaging Technology I introduces students to the graphic communications industry. Students gain an overview of digital file preparation, image capture, color theory, digital file output, press operations, and bindery operations. Students learn to practice workplace safety and develop skills in measurement, mathematical problem solving, interpersonal communication, and the job application process. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
BHS	•								
CHS									
EMHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							


GRAPHIC IMAGING TECHNOLOGY II			MCPS Course Code	86610	High School Credits		2	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Tests(s) May Be Required	
Grade Level		10-12	Prerequisite(s)	Graphics Imaging Technology I					
Course Description: Graphic Imaging Technology II prepares students for a career in the graphic communications industry. Students gain knowledge and skills in digital file preparation and output. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
BHS	•								
CHS									
EMHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							

GRAPHICS IMAGING VISUALIZATION			MCPS Course Code	84590	High School Credits		1	Graduation Requirement	CTE Credential Tests(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	9-12	Prerequisite(s)	None						
<b>Course Description:</b> Students gain experiences related to computer animation by using graphics and design concepts. Students solve problems involving 3-D object manipulation, storyboarding, texturing/mapping, lighting concepts, and environmental geometry. Students create a variety of animations that reflect real-world applications and are introduced to interactive and 3-D animation software. Production of a portfolio showcasing examples of original student work is included.									
AHS									
BHS									
CHS	•								
EMHS									

FASHION MARKETING			MCPS Course Code	81400	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	10-12	Prerequisite(s)							
<b>Course Description:</b> In this specialized course, students gain basic knowledge of the apparel and accessories industry and skills necessary for successful employment in apparel businesses. Students develop general marketing skills necessary for successful employment in fashion marketing, general marketing skills applicable to the apparel and accessories industry, and specialized skills unique to fashion marketing. <b>Completion of 81400 and DE8145 is required to receive dual enrolled credit for NRCC's MKT 120.</b>									
AHS									
BHS	•								
CHS	•								
EMHS									

DE ADVANCED FASHION MARKETING			MCPS Course Code	DE8145	High School Credits	1	Graduation Requirement
					Weighted	✓	
					Credit Type	CTE	
Dual Enrolled	✓		NRCC Course Code(s)	MKT 120	College Credits	3	CTE Credential Test(s) May Be Required
Grade Level	11-12	Prerequisite(s)	See Below *				
<b>Course Description:</b> This course is based on the NRCC syllabus for MKT 120, Fundamentals of Fashion. To meet NRCC requirements, students with a career interest in apparel and accessories marketing gain in-depth knowledge of the apparel and accessories industry and skills important for supervisory-management employment in apparel businesses. They develop advanced skills unique to fashion marketing and advanced general marketing skills applied to the apparel and accessories industry.							
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <u>pages 9-11</u> and <u>194-196</u>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.							
<b>NOTE: Completion of 81400 and DE8145 is required to receive dual enrolled credit for NRCC's MKT 120</b>							
ADVANCED FASHION MARKETING	81450	This course may be taken by students who are not eligible to take a dual enrolled course					
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.					
BHS							
CHS							
EMHS							

SPORTS & ENTERTAINMENT MARKETING			MCPS Course Code	81750	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	10-12	Prerequisite(s)							
<b>Course Description:</b> This introductory course helps students develop a thorough understanding of fundamental marketing concepts and theories as they relate to the sports, entertainment, and recreation industries. Students will investigate the components of branding, sponsorships and endorsements, as well as promotion plans needed for sports, entertainment and recreation events. <b>Completion of 81750 and DE8177 is required to receive dual enrolled credit for NRCC's MKT 209.</b>									
AHS									
BHS	•								
CHS	•								
EMHS									

DE ADVANCED SPORTS & ENTERTAINMENT MANAGEMENT			MCPS Course Code	DE8177	High School Credits	1	Graduation Requirement
					Weighted	✓	
					Credit Type	CTE	
Dual Enrolled	✓		NRCC Course Code(s)	MKT 209	College Credits	3	CTE Credential Test(s) May Be Required
Grade Level	11-12	Prerequisite(s)	See Below *				
<b>Course Description:</b> This course is based on the NRCC syllabus for MKT 209 Sports, Entertainment and Recreation Marketing. To meet NRCC requirements, students will build on prior knowledge of sports, entertainment, and recreation marketing. This course focuses on the principles of management and planning supported by research, financial, and legal concepts.							
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.							
<b>NOTE: Completion of 81750 and DE8177 is required to receive DE credit for NRCC's MKT 209</b>							
ADV SPORTS & ENTERTAINMENT MANAGEMENT	81770	This course may be taken by students who are not eligible to take a dual enrolled course					
AHS		<b>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</b>					
BHS							
CHS							
EMHS							

OPPORTUNITIES IN GLOBAL TRADE			MCPS Course Code	81350	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	10-12	Prerequisite(s)							
Course Description: Global Marketing and Commerce is a specialized course for students with a career interest in the field of international trade. Students gain an understanding of the various careers in global trade, finance, shipping, and marketing and consider fundamental concepts, principles, and theories of marketing in an international setting.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources.							
BHS									
CHS									

EMHS		<i>Students interested in this course should see their school counselor.</i>
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ADVANCED OPPORTUNITIES IN GLOBAL TRADE			MCPS Course Code	81360	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	12	Prerequisite(s)	Opportunities in Global Trade						
Course Description: Advanced Global Marketing and Commerce, is a specialized course for students with a career interest in international trade, builds upon concepts learned in Global Marketing and Commerce (8135). Economic and international trade concepts are reviewed, and the world environment of international trade is further explored.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									



# Family & Consumer Science

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INTRODUCTION TO CULINARY ARTS			MCPS Course Code	82500	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	9-10	Prerequisite(s)							
<b>Course Description:</b> The Introduction to Culinary Arts curriculum provides students with opportunities to explore career options and entrepreneurial opportunities within the food service industry. Students investigate food safety and sanitation, explore culinary preparation foundations, practice basic culinary skills, explore diverse cuisines and service styles, investigate nutrition and menu development, and examine the economics of food. The curriculum places a strong emphasis on science and mathematics knowledge and skills									
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
BHS	•								
CHS	•								
EMHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							

CULINARY ARTS I			MCPS Course Code	82750	High School Credits		2	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	10-11	Prerequisite(s)							
<b>Course Description:</b> Students practice managerial, production, and service skills used in government, commercial, or independently owned institutional food establishments and related food industry occupations. Students plan, select, store, purchase, prepare, and serve food and food products. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
BHS	•								
CHS	•								
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							

CULINARY ARTS II			MCPS Course Code	82760	High School Credits		2	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	11-12	Prerequisite(s)	Culinary Arts I						
<b>Course Description:</b> Culinary Arts II 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. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
BHS	•								
CHS	•								
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							

CULINARY ARTS SPECIALIZATION			MCPS Course Code	82790	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	12	Prerequisite(s)	Culinary Arts II						
<b>Course Description:</b> The Culinary Arts Specialization curriculum provides students with continuing opportunities to obtain comprehensive knowledge of the food service industry as well as to expand their technical skills in a food service specialty. Students explore careers and refine their skills in implementing safety and sanitation standards, applying nutritional principles, planning menus, using business and math skills, and selecting and maintaining food service equipment. Depending on the options available in the locality, students specialize in one of the following four areas: Baking and Pastry Food-Preparation Techniques; Catering/Banquet Food-Preparation Techniques; Restaurant Operation Techniques; Quantity Food-Preparation Techniques. The curriculum continues to place a strong emphasis on science and mathematics knowledge and skills as it emphasizes critical thinking, practical problem solving, and entrepreneurial opportunities within the field of culinary arts.									
VDOE Maximum Section Enrollment Applies.									
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
BHS	•								
CHS	•								
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							


INDEPENDENT LIVING			MCPS Course Code	82190	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	9-12	Prerequisite(s)							
Course Description: Students enrolled in Independent Living focus on managing resources to achieve individual goals; making informed consumer choices; creating and maintaining a living environment that support the well-being of individuals; living in a global environment; making decisions related to nutrition, clothing, and housing; and managing a household.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
FMHS									

FAMILY RELATIONS			MCPS Course Code	82250	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level		9-12	Prerequisite(s)						
Course Description: Family Relations will focus on analyzing the significance of the family, nurturing human development in the family throughout the lifespan, analyzing factors that build and maintain healthy family relationships, developing communication patterns that enhance family relationships, dealing effectively with family stressors and conflicts, managing work and family roles and responsibilities, and analyzing social forces that influence families across the lifespan.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

NUTRITION & WELLNESS			MCPS Course Code	82290	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	9-12	Prerequisite(s)							
Course Description: Students enrolled in Nutrition and Wellness focus on making choices that promote wellness and good health; analyzing relationships between psychological and social needs and food choices; choosing foods that promote wellness; obtaining and storing food for self and family; preparing and serving nutritious meals and snacks; selecting and using equipment for food preparation; and identifying strategies to promote optimal nutrition and wellness of society.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

INTRODUCTION TO EARLY CHILDHOOD EDUCATION			MCPS Course Code	82340	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	9-12	Prerequisite(s)							
Course Description: The child care and education competencies focus on the principles of child growth and development; development of self-concepts and building self-esteem; learning experiences for children; principles of guiding children; healthy and safe environments; career development; and careers related to child care.									
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
BHS	•								
CHS	•								
EMHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							

EARLY CHILDHOOD EDUCATION I			MCPS Course Code	82850	High School Credits		2	Graduation Requirement
					Weighted			
					Credit Type	CTE		CTE Credential Tests(s) May Be Required
Grade Level	10-12	Prerequisite(s)	82340 Introduction to Early Childhood Education					
<b>Course Description:</b> Students prepare to be primary providers of home-, family-, or institution-based childcare services by focusing on the planning, organizing, and conducting of meaningful play and learning activities; child monitoring and supervision; recordkeeping and referral procedures; and work-based learning experiences in on-site labs, local daycare centers, elementary schools, and other institutions under the supervision of the instructor. Students also prepare for continuing education leading to careers in early childhood fields (e.g., medical, social services, education).								
VDOE Maximum Section Enrollment Applies.								
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).						
BHS	•							
CHS	•							
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).						

DE EARLY CHILDHOOD EDUCATION II				MCPS Course Code	DE8286	High School Credits		2	Graduation Requirement
						Weighted		✓	
						Credit Type	CTE		
Dual Enrolled	✓			NRCC Course Code(s)	CHD 118 & CHD 120	College Credits		6	CTE Credential Tests(s) May Be Required
Grade Level		11-12	Prerequisite(s)		Early Childhood Education I *				
<b>Course Description:</b> This course is based on the NRCC syllabus for the appropriate course. To meet NRCC requirements, students focus on occupational skills needed by personnel employed in early childhood-related fields, such as education, medical/health care, social services, counseling, psychology, and entrepreneurship. Work-based learning experiences (e.g., on-site lab, local daycare centers, elementary schools, other institutions) under the supervision of the instructor are required.									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.									
<b>NOTE: This course must be scheduled for 280 clock hours. VDOE Maximum Section Enrollment Applies.</b>									
EARLY CHILDHOOD EDUCATION II		82860	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
BHS	•								
CHS	•								
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							

INTRODUCTION TO INTERIOR DESIGN			MCPS Course Code	82550	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	9-12	Prerequisite(s)							
Course Description: The Introduction to Design II tasks/competencies focus on identifying and exploring various careers in all areas of the interior design industry. Units of study include investigation of the physical and psychological aspects of interior environments.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									


INTERIOR DESIGN I			MCPS Course Code	82950	High School Credits		2	Graduation Requirement		
					Weighted					
					Credit Type	CTE		CTE Credential Tests(s) May Be Required Required		
Grade Level	10-12	Prerequisite(s)								
Course Description: Students prepare for employment in the entire spectrum of interior design by acquiring skills that include selection, purchase, design, and decoration of home furnishings and equipment; floral design; accessory construction; and textiles selection, as they prepare for continuing education leading to a career in interior design, space planning, or interior architecture.										
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.								
BHS										
CHS										
EMHS										

INTRODUCTION TO FASHION CAREERS			MCPS Course Code	82480	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	9-12	Prerequisite(s)							
Course Description: The design and merchandising competencies for this course focus on identifying and exploring the individual careers within the apparel, accessory, and textile design, manufacturing, and merchandising industry.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									


INTRODUCTION TO HOSPITALITY, TOURISM & RECREATION			MCPS Course Code	82590	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	9-12	Prerequisite(s)							
Course Description: Students enrolled in Introduction to Hospitality, Tourism, and Recreation focus on developing professional skills and using emerging technologies to prepare for employment in this global industry rich in diverse career opportunities.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

## Health & Medical Sciences


INTRODUCTION TO HEALTH & MEDICAL SCIENCES			MCPS Course Code	83020	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE			
Grade Level		9-12	Prerequisite(s)						
Course Description: The healthcare field is one of the fastest growing career areas with great job potential for students. This course introduces the student to the many and varied opportunities in the healthcare field.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

DE NURSE AIDE				MCPS Course Code	DE8331	High School Credits		2	Graduation Requirement	
						Weighted		✓		
						Credit Type	CTE			
Dual Enrolled	✓			NRCC Course Code(s)	NUR 27	College Credits			5	CTE Credential Tests(s) May Be Required
Grade Level		11-12	Prerequisite(s)		See Below *					
<p><b>Course Description:</b> This course is based on the NRCC syllabus for Nurse Aide I (NUR 27). This course helps prepare students to take the Virginia State Certification for Nursing Assistants, though taking the exam is not required to complete the course. Students are introduced to a wide variety of basic skills related to the health care field, including non-nursing areas.</p> <p><b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.</p>										
NURSE AIDE		83310	This course may be taken by students who are not eligible to take a dual enrolled course							
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).								
BHS	•	Both the 83310 course and the DE8331 course are offered at BHS								
CHS	•	Both the 83310 course and the DE8331 course are offered at CHS								
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).								

MENTAL HEALTH ASSISTING CAREERS			MCPS Course Code	83320	High School Credits		1	Graduation Requirement	CTE Credential Tests(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	12	Prerequisite(s)							
Course Description: Depression, Anxiety, Suicide, Violence, Eating Disorders, Schizophrenia, Dementias, Attention Deficit Disorder, and Bipolar Disorder are just a few of the mental health issues that will be discussed in this course. Students will also learn skills they can use in their day-to-day life, such as conflict resolution techniques, stress reduction skills, communication strategies, and rapport building.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

DE EMERGENCY MEDICAL TECHNICIAN I			MCPS Course Code	DE8333	High School Credits		2	Graduation Requirement	
					Weighted		✓		
					Credit Type	CTE			
Dual Enrolled	✓		NRCC Course Code(s)	EMS 112, EMS 113 & EMS 120	College Credits			CTE Credential Tests(s) May Be Required	
Grade Level		11-12	Prerequisite(s)	Introduction to Health and Medical Sciences (Recommended)					
<b>Course Description:</b> This course is based on the NRCC syllabi for EMS 112, EMS 113 & EMS 120. To meet NRCC requirements, students focus on the role and responsibilities of emergency rescue workers, basic medical terminology, and health care skills that include first aid, cardiopulmonary resuscitation, ascetic technique, and related anatomy, physiology, and disease knowledge. Supervised work education is provided in a hospital or with rescue squads and is managed by the teacher. This course may carry with it a fee to NRCC.									
EMERGENCY MEDICAL TECHNICIAN I		83330	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS		<b>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</b>							
BHS									
CHS									
EMHS									

EMERGENCY MEDICAL RESPONDER			MCPS Course Code	83360	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Tests(s) May Be Required	
Grade Level	11-12	Prerequisite(s)	Introduction to Health and Medical Sciences						
Course Description: This course prepares the EMR student to provide immediate life-saving interventions for patients of all ages while awaiting additional emergency medical services (EMS) resources. Areas of study include an introduction to EMS systems, roles and responsibilities of the EMR, anatomy and physiology, medical emergencies, trauma, and special considerations for working in the pre-hospital setting.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

DE MEDICAL TERMINOLOGY				MCPS Course Code	DE8383	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	CTE		
Dual Enrolled	✓			NRCC Course Code(s)	HIM 101 & HIM 103	College Credits		6	CTE Credential Tests(s) May Be Required
Grade Level		11-12	Prerequisite(s)	Introduction to Health and Medical Sciences (Recommended) *					
<p><b>Course Description:</b> This course is based on the NRCC syllabus for Medical Terminology I &amp; II. To meet NRCC requirements, students will learn medical terms in an organized and systematic way. Designed to help the student learn the language of healthcare, we begin with each body system’s anatomy and physiology, and process through pathology, diagnostic procedures, therapeutic interventions, and finally pharmacology (drugs). <b>Students must complete the HIM 101 portion of this course with a D or better in order to advance to the HIM 103 portion of this course.</b></p>									
<p>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</p>									
MEDICAL TERMINOLOGY		83830	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

PHARMACY TECHNICIAN I			MCPS Course Code	83050	High School Credits		2	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Test(s) May Be Required	
Grade Level	10-12	Prerequisite(s)	Introduction to Health & Medical Science or Medical Terminology						
<b>Course Description:</b> This certificate program is designed to provide students with the basic skills and knowledge to begin work as a pharmacy technician. The coursework will fulfill the requirements of the Board of Pharmacy and prepare students to take either the state examination or the national examination administered by the Pharmacy Technician Certification Board. Trained, experienced pharmacy technicians who can demonstrate the right skills and knowledge should be able to pursue many exciting and respected career options or postsecondary study in the pharmacy field. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								






PHARMACY TECHNICIAN II			MCPS Course Code	83060	High School Credits		2	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	12	Prerequisite(s)	Pharmacy Technician 1						
<b>Course Description:</b> This certificate program is designed to provide students with the basic skills and knowledge to begin work as a pharmacy technician. The coursework will fulfill the requirements of the Board of Pharmacy and prepare students to take either the state examination or the national examination administered by the Pharmacy Technician Certification Board. Trained, experienced pharmacy technicians who can demonstrate the right skills and knowledge should be able to pursue many exciting and respected career options or postsecondary study in the pharmacy field. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	●								
BHS	●								
CHS	●								
EMHS	●								




MEDICAL CODING & BILLING I			MCPS Course Code	83880	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	10-12	Prerequisite(s)							
<b>Course Description:</b> Students will be introduced to healthcare systems, how to manage an office, and the electronic medical record as it pertains to the field of medical coding and billing. Students will be exposed to the medical terminology used to describe human anatomy and physiology. Students will also be introduced to the field of health informatics. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•	Medical Coding & Billing I & II will only be offered as semester courses within the same school year. Students will be required to complete both courses in one school year for a total of 3 credits.							
BHS	•								
CHS	•								
EMHS	•								




MEDICAL CODING & BILLING II			MCPS Course Code	83890	High School Credits		2	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	10-12	Prerequisite(s)							
<b>Course Description:</b> Students will be introduced to healthcare systems, how to manage an office, and the electronic medical record as it pertains to the field of medical coding and billing. Students will be exposed to the medical terminology used to describe human anatomy and physiology. Students will also be introduced to the field of health informatics. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•	Medical Coding & Billing I & II will only be offered as semester courses within the same school year. Students will be required to complete both courses in one school year for a total of 3 credits.							
BHS	•								
CHS	•								
EMHS	•								




# Technology



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<div>DE CIVIL ENGINEERING &amp; ARCHITECTURE</div> <div></div>			MCPS Course Code	DE8430	High School Credits		1	Graduation Requirement	
					Weighted		✓		
					Credit Type		CTE		CTE Credential Tests(s) May Be Required
Dual Enrolled	✓	 R.I.T	RIT Course Code(s)	PLTW 101-88	College Credits		3		
Grade Level		11-12	Prerequisite(s)						
Course Description: In this specialization course for Project Lead the Way (PLTW) students collaborate on both the development of community-based building and design projects and conceptual design for project presentations.									
AHS		<div>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</div>							
BHS									
CHS									
EMHS									



DE INTRODUCTION TO ENGINEERING DESIGN (Technology)				MCPS Course Code	DE8439	High School Credits	1	Graduation Requirement		
						Weighted				✓
						Credit Type	CTE			CTE Credential Tests(s) May Be Required
Dual Enrolled	✓	 R·I·T	RIT Course Code(s)	PLTW 101-88	College Credits	3				
Grade Level		9-12	Prerequisite(s)							
<b>Course Description:</b> This course is based on the <b>Rochester Institute of Technology</b> syllabus for PLTW101-88 Introduction to Engineering Design. In this foundation course in Project Lead the Way (PLTW), students use 3-D computer modeling software as they learn the engineering-design process and solve design problems for which they develop, analyze, and create models of project solutions. This course may carry with it a fee to RIT to receive college credits.										
AHS										
BHS										
CHS										
EMHS	•									


DE PRINCIPLES OF ENGINEERING				MCPS Course Code	DE8441	High School Credits	1	Graduation Requirement		
						Weighted				✓
						Credit Type	CTE			CTE Credential Tests(s) May Be Required
Dual Enrolled	✓	 R.I.T	RIT Course Code(s)	PLTW 102-88	College Credits	3				
Grade Level		10-12	Prerequisite(s)							
<b>Course Description:</b> This course is based on the <b>Rochester Institute of Technology</b> syllabus for PLTW 102-88 Principals of Engineering. In this Project Lead the Way (PLTW) course, students explore the engineering profession and the fundamental aspects of engineering problem solving. Students study the historical and current impacts of engineering on society, including ethical implications. Mathematical and scientific concepts will be applied to fundamental engineering topics, including mechanics and electrical-circuit theory. This course may carry with it a fee to RIT to receive college credits										
AHS	•									
BHS	•									
CHS										
EMHS	•									



DE COMPUTER INTEGRATED MANUFACTURING					MCPS Course Code	DE8442	High School Credits		1	Graduation Requirement	
							Weighted		✓		
							Credit Type	CTE			CTE Credential Tests(s) May Be Required
Dual Enrolled	✓			RIT Course Code(s)	PLTW 105-88	College Credits		3			
Grade Level		10-12	Prerequisite(s)								
<b>Course Description:</b> This course is based on the <b>Rochester Institute of Technology</b> syllabus for PLTW 105-88 Computer Integrated Manufacturing. In this specialization course in Project Lead the Way (PLTW), students are taught concepts of robotics and automated manufacturing by creating 3-D designs with computer modeling software and producing computer-controlled models of their designs. This course may carry with it a fee to RIT to receive college credits.											
AHS											
BHS	•										
CHS											
EMHS											



DE INTRODUCTION TO ENGINEERING DESIGN (Drafting I)					MCPS Course Code	DE8530	High School Credits		1	Graduation Requirement
							Weighted		✓	
							Credit Type	CTE		
Dual Enrolled	✓	 R·I·T	RIT Course Code(s)	PLTW 101-88	College Credits		3	CTE Credential Tests(s) May Be Required		
Grade Level		9-10	Prerequisite(s)							
<b>Course Description:</b> This course is based on the <b>Rochester Institute of Technology</b> syllabus for PLTW 101-88 Introduction to Engineering Design. To meet RIT requirements, students will learn The Universal Language of Industry. They learn to draw using the basic concepts of engineering drawing, such as line weights, measurements, geometric constructions, and orthographic projection. Drawings are initially made using standard board drafting equipment. Students will also learn to use a parametric 3D modeling program to create solid models of various project. Students will use computer software to produce, analyze and evaluate models of project solutions. This course may carry with it a fee to RIT.										
AHS										
BHS	•									
CHS										
EMHS										



DE ENGINEERING DESIGN GRAPHICS (Drafting II)				MCPS Course Code	DE8531	High School Credits		2	Graduation Requirement
						Weighted		✓	
						Credit Type	CTE	CTE Credential Tests(s) May Be Required	
Dual Enrolled	✓			NRCC Course Code(s)	CAD 151	College Credits	3		
Grade Level		11-12	Prerequisite(s)	Introduction to Engineering Design (Drafting I) *					
<b>Course Description:</b> This course is based on the NRCC syllabus for CAD 151. Building on competencies taught in Drafting I, students will master the theory and manipulative skills necessary to produce complete and accurate drawings based on the ideas and sketches of engineers, architects, and designers. Students focus on performing mechanical drafting and design operations, using manual drafting techniques and Computer Aided Drafting and Design (CADD) software, and explore careers in drafting including industry certification from ADDA.									
* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a> ) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.									
AHS									
BHS	•								
CHS									
EMHS									


DE CIVIL ENGINEERING & ARCHITECTURAL DESIGN GRAPHICS (Drafting III)				MCPS Course Code	DE8532	High School Credits		2	Graduation Requirement
						Weighted		✓	
						Credit Type		CTE	
Dual Enrolled	✓			NRCC Course Code(s)	CAD 111	College Credits		3	
Grade Level		11-12	Prerequisite(s)		Engineering Design Graphics (Drafting II) *				
<b>Course Description:</b> This course is based on the NRCC syllabus for CAD 111. Building on competencies taught in Drafting I and II, students are taught the theory and the manipulative skills necessary to produce and complete accurate drawings based on the ideas and sketches of engineers, architects, and designers. Students focus on performing architectural drafting and design operations, using manual drafting techniques and Computer Aided Drafting and Design (CADD), and exploring careers in drafting, including industry certification options.									
* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a> ) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.									
AHS									
BHS	•								
CHS									
EMHS									


TECHNICAL DRAWING & DESIGN				MCPS Course Code	84350	High School Credits		1	Graduation Requirement
						Weighted			
						Credit Type	CTE		
Grade Level		9-12	Prerequisite(s)						
Course Description: Basic Technical drawing is an introductory drafting course that provides students the opportunity to develop the skills of the graphic language of technical design and illustration used in the industries of engineering, architecture, drafting and design.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

DE ENGINEERING DRAWING & DESIGN				MCPS Course Code	DE8436	High School Credits	1	Graduation Requirement	
						Weighted			✓
						Credit Type	CTE		
Dual Enrolled	✓		NRCC Course Code(s)	CAD 111	College Credits	3		CTE Credential Tests(s) May Be Required	
Grade Level		10-12	Prerequisite(s)		Technical Drawing and Design *				
<b>Course Description:</b> This course is based on the VCCS syllabus for CAD 111 Technical Drafting I. To meet NRCC requirements, students will learn various computer aided drafting and design (CADD) software applications to prepare graphic illustrations for practical solutions to various design problems.									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b>									
ENGINEERING DRAWING & DESIGN		84360	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS	•	Only the 84360 course is offered at AHS (NOT DE)							
BHS									
CHS	•	Only the DE8436 course is offered at CHS. <b>At CHS, this course is dual enrolled with CAD 151.</b>							
EMHS	•	Only the 84360 course is offered at EMHS (NOT DE)							

DE ARCHITECTURAL DRAWING & DESIGN				MCPS Course Code	DE8437	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	CTE		
Dual Enrolled	✓		NRCC Course Code(s)	CAD 151	College Credits		3	CTE Credential Tests(s) May Be Required	
Grade Level		10-12	Prerequisite(s)	Technical Drawing and Design *					
<b>Course Description:</b> This course is based on the NRCC syllabus for CAD 151 Engineering Drawing Fundamentals. To meet NRCC requirements, students will be introduced to the principles of architectural design and drafting, including conceptual building and space planning, detailed working drawings, construction techniques and specifications of materials.									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b>									
ARCHITECTURAL DRAWING & DESIGN		84370	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS	•	Only the 84370 course is offered at AHS (NOT DE)							
BHS	•	Only the DE8437 course is offered at BHS							
CHS	•	Only the DE8437 course is offered at CHS. <b>At CHS, this course is dual enrolled with ARC 121.</b>							
EMHS									



DE ADVANCED DRAWING & DESIGN				MCPS Course Code	DE8438	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	CTE		
Dual Enrolled	✓		NRCC Course Code(s)	CAD 152	College Credits		3	CTE Credential Tests(s) May Be Required	
Grade Level		11-12	Prerequisite(s)	Architectural Drawing and Design or Engineering Drawing & Design *					
<b>Course Description:</b> This course is based on the NRCC syllabus for CAD 152 Engineering Drawing Fundamentals II. To meet NRCC requirements, students will increase their understanding of drawing and design techniques learned in the prerequisite courses. Students will research design-related fields while identifying the role of advanced design processes in industries such as manufacturing and construction.									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b>									
ADVANCED DRAWING & DESIGN		84380	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS	•								
BHS	•	At BHS, students must complete DE8530, DE8531, and DE 8532 before taking this course							
CHS	•	Only the DE8438 course is offered at CHS. At CHS, students must take DE8436 and DE8437 before taking this course							
EMHS									

DE INTRODUCTION TO DRONES				MCPS Course Code	DE8910	High School Credits	1	Graduation Requirement
						Weighted	✓	
						Credit Type	CTE	SOL Test(s) Required
Dual Enrolled	✓			NRCC Course Code(s)	UMS 107	College Credits		3 CTE Credential Test(s) May Be Required
Grade Level		11-12	Prerequisite(s)	See Below *				
<b>Course Description:</b> This course is based on NRCC syllabi for Small Unmanned Aircraft Systems (sUAS) Remote Pilot Ground School and Components and Maintenance. To meet NRCC requirements, this course presents the aeronautical knowledge required for FAA approved commercial operations as a Remote Pilot with small Unmanned Aircraft Systems (sUAS) rating; covers the regulations applicable to small UAS operations, loading and performance, emergency procedures, crew resource management, determining the performance of the small unmanned aircraft, and maintenance/inspection procedures; prepares students for the FAA written examination required to obtain the Remote Pilot certificate (UMS 107).								
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC. <b>VDOE Maximum Section Enrollment Applies.</b></b>								
INTRODUCTION TO DRONES		8910	This course may be taken by students who are not eligible to take a dual enrolled course					
AHS	•							
BHS	•							
CHS	•							
EMHS	•							

DE DRONES II				MCPS Course Code	DE8736	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	CTE		SOL Test(s) Required
Dual Enrolled	✓			NRCC Course Code(s)	UMS 177	College Credits		3	CTE Credential Test(s) May Be Required
Grade Level		11-12	Prerequisite(s)	DE Introduction to Drones *					
<b>Course Description:</b> Provides an introduction to the basic equipment and techniques used in maintaining, repairing, and upgrading sUAS to assure airworthiness and proper operation of the other components. Emphasizes safe practices in repair and handling of components and develops fundamental skills in troubleshooting/repair of the circuits, subsystems and components typically found in the complete sUAS. Covers payload sensor mounting, power management and security threat management.									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC. <b>VDOE Maximum Section Enrollment Applies.</b></b>									
DRONES II		87360	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS									
BHS	•								
CHS	•								
EMHS									







# Trade & Industry


DE WELDING I					MCPS Course Code	DE8019	High School Credits		1	Graduation Requirement	
							Weighted		✓		
							Credit Type	CTE			
Dual Enrolled	✓		NRCC Course Code(s)	WEL 100	College Credits		3	CTE Credential Test(s) May Be Required			
Grade Level		10-12	Prerequisite(s)	See Below *							
<p><b>Course Description:</b> This course is based on the NRCC syllabus for WEL 100 Fundamentals of Welding. To meet NRCC requirements, students in this course will be introduced to welding processes commonly known as Stick Electrode, MIG and TIG welding. Students will also weld with Flux Core and learn advanced metal cutting techniques.</p> <p><b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC..</p> <p><b>VDOE Maximum Section Enrollment Applies.</b></p>											
WELDING I		80190	This course may be taken by students who are not eligible to take a dual enrolled course								
AHS	•										
BHS	•										
CHS	•										
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).									


AGRICULTURAL FABRICATIONS & EMERGING TECHNOLOGIES			MCPS Course Code	80191	High School Credits		1	Graduation Requirement	CTE Credential Test(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	10-12	Prerequisite(s)							
<b>Course Description:</b> In this course, students will receive instruction in metal fabrication, including cutting, welding, and cold metalworking processes, for agricultural applications. This course will also include the investigation of emerging technologies used within the field of agriculture. Leadership and career skills will be incorporated throughout. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									





DE WELDING II				MCPS Course Code	DE8095	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	CTE		
Dual Enrolled	✓		NRCC Course Code(s)	WEL 123	College Credits		4	CTE Credential Test(s) May Be Required	
Grade Level		11-12	Prerequisite(s)	DE Welding I *					
<b>Course Description:</b> This course is based on the NRCC syllabus for WEL 123Shielded Metal Arc Welding, Basic. To meet NRCC requirements, this course is a continuation of Welding I and will further develop the student welding skills.									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC. <b>VDOE Maximum Section Enrollment Applies.</b></b>									
WELDING II		80950	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS	•								
BHS	•								
CHS	•								
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							


DE WELDING III				MCPS Course Code	DE8096	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type		CTE	
Dual Enrolled	✓		NRCC Course Code(s)	WEL 160	College Credits	4			
Grade Level		11-12	Prerequisite(s)	DE Welding II *					
<b>Course Description:</b> Introduces semi-automatic welding processes with emphasis on practical application. Includes the study of filler wires, fluxes, and gases. Also known as “MIG” welding, this process, because it uses an arc between a continuous filler wire and the weld pool, is extremely fast and economical. GMAW is often used in production work due to its speed, versatility and ease of use. The process is used with shielding from an externally supplied gas and is used to weld on a variety of metal thicknesses from thin-gauge metal to heavy plate metal in any position.									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC. <b>VDOE Maximum Section Enrollment Applies.</b></b>									
WELDING III		80960	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS	•								
BHS	•								
CHS	•								
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							


MANUFACTURING SYSTEMS I				MCPS Course Code	84250	High School Credits		1	Graduation Requirement
						Weighted			
						Credit Type	CTE		
Grade Level		9-12	Prerequisite(s)						
<b>Course Description:</b> This course provides an orientation to careers in various fields of manufacturing. Emphasis will be placed on manufacturing systems, safety, materials, production, business concepts, and the manufacturing process. Students participate in individual and team activities to create products that demonstrate critical elements of manufacturing. <b>84210 and 84250 constitute a CTE completer sequence. VDOE Maximum Section Enrollment Applies.</b>									
AHS									
BHS	•								
CHS									
EMHS	•								


MANUFACTURING SYSTEMS II				MCPS Course Code	84270	High School Credits		1	Graduation Requirement
						Weighted			
						Credit Type	CTE		
Grade Level		11-12	Prerequisite(s)	Manufacturing Systems I					
<b>Course Description:</b> Students develop an in depth understanding of automation and its applications in manufacturing. Activities center on flexible manufacturing processes and computer integrated manufacturing (CIM). Students work in teams to solve complex interdisciplinary problems that stem from the major systems in automated manufacturing.									
<b>VDOE Maximum Section Enrollment Applies.</b>									
AHS									
BHS	•								
CHS									
EMHS									


MATERIALS & PROCESSES TECHNOLOGY				MCPS Course Code	84330	High School Credits		1	Graduation Requirement
						Weighted			
						Credit Type	CTE		
Grade Level		9-10	Prerequisite(s)						
<b>Course Description:</b> Students focus on industrial/technical materials and processes as they fabricate usable products and conduct experiments. Learning experiences include career analysis as well as the use of tools and equipment related to analysis, testing, and processing of metals, plastics, woods, ceramics, and composite materials. This single-period laboratory course is recommended for students interested in technical careers and others wishing to improve their consumer knowledge and technological literacy. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•								
BHS	•								
CHS									
EMHS	•								


CONSTRUCTION TECHNOLOGY				MCPS Course Code	84310	High School Credits		1	Graduation Requirement
						Weighted			
						Credit Type	CTE		
Grade Level		9-12	Prerequisite(s)						
Course Description: Students design, build and test scale model structures. They also work with projects that help them understand the jobs of architects, carpenters, electricians, plumbers, surveyors, contractors, masons, and design engineers, as well as explore a variety of other construction career. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS	•								
BHS	•								
CHS									
EMHS	•								


BUILDING TRADES I				MCPS Course Code	85150	High School Credits		2	Graduation Requirement	
						Weighted				
						Credit Type	CTE		CTE Credential Tests(s) May Be Required	
Grade Level	10-11	Prerequisite(s)								
Course Description: Building Trades I prepares students to erect, install, maintain, and repair building, and other structures using materials such as metal, wood, stone, brick, glass, concrete and composition substances. Students focus on developing skills in core safety in the masonry, carpentry, electricity, and plumbing professions. VDOE Maximum Section Enrollment Applies										
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.								
BHS										
CHS										
EMHS										


BUILDING TRADES II				MCPS Course Code	85160	High School Credits		2	Graduation Requirement	CTE Credential Tests(s) May Be Required
						Weighted				
						Credit Type	CTE			
Grade Level	10-11	Prerequisite(s)								
<b>Course Description:</b> Building Trades II continues to prepare students to erect, install, maintain, and repair building, and other structures using materials such as metal, wood, stone, brick, glass, concrete and composition substances. Students focus on developing skills in core safety in the masonry, carpentry, electricity, and plumbing professions. <b>NOTE:</b> Co-operative education is available. <b>VDOE Maximum Section Enrollment Applies.</b>										
AHS		<b>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</b>								
BHS										
CHS										
EMHS										


CARPENTRY I				MCPS Course Code	86010	High School Credits		1	Graduation Requirement
						Weighted			
						Credit Type	CTE		
Grade Level		9-12	Prerequisite(s)						
<b>Course Description:</b> Carpentry I is the building block for achieving high-level construction industry skills that can result in an exciting and lucrative career. With an emphasis on safety, students are taught to use hand and power tools, cut stock, apply construction mathematics, and interpret blueprints. Students will become proficient in identifying types of residential construction components to form foundations and frame walls, floors, ceilings, roofs, doors, and windows. All students will obtain the required OSHA 10 safety credential. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS									
BHS	•								
CHS	•								
EMHS	•								


CARPENTRY II				MCPS Course Code	86020	High School Credits		2	Graduation Requirement
						Weighted			
						Credit Type	CTE		
Grade Level	9-12	Prerequisite(s)	Carpentry I						
<b>Course Description:</b> Carpentry II leads to successful transition into postsecondary education for careers in carpentry and related fields, such as construction management, architecture, and others. Students are taught the safe use of hand and power tools common to the industry to complement their OSHA 10 safety credential earned in Carpentry I. Students will become proficient in assembling and installing various types of residential construction components that are current with industry standards, including rigging and job-estimating procedures, forming foundations, framing floors, walls, ceiling, roofs, trusses, roofing materials, stairs, exterior doors and windows, decks, and porches. Successfully passing this course leads to CTE program completion.									
VDOE Maximum Section Enrollment Applies.									
AHS									
BHS	•								
CHS	•								
EMHS	•								


CARPENTRY III				MCPS Course Code	86030	High School Credits		2	Graduation Requirement
						Weighted			
						Credit Type	CTE		
Grade Level		10-12	Prerequisite(s)	Carpentry II					
<p><b>Course Description:</b> Carpentry III is an advanced course that allows students to gain in-depth knowledge and hands-on experience in construction industry skills. Work-based learning methods of instruction for this course would provide the student with practical, on-the-job experience in addition to what he or she has already mastered in Carpentry I and II. Additional exploration of the carpentry profession and postsecondary options for continuing education and professional opportunities are also emphasized.</p> <p><b>VDOE Maximum Section Enrollment Applies.</b></p>									
AHS									
BHS	•								
CHS	•								
EMHS									


CABINET MAKING I				MCPS Course Code	86040	High School Credits		1	Graduation Requirement
						Weighted			
						Credit Type	CTE		
Grade Level		9-12	Prerequisite(s)						
<b>Course Description:</b> Students learn workshop and tool safety and employability skills as they practice reading plans; estimating and selecting materials; cutting and shaping stock; assembling, fastening, and installing components; and finishing surfaces. The technical, problem-solving, leadership, and creative skills learned in Cabinetmaking can be applied in industries well beyond construction trades and professions and can prepare the student for lifelong learning and success.									
VDOE Maximum Section Enrollment Applies.									
AHS									
BHS		•							
CHS									
EMHS		•							


CABINET MAKING II				MCPS Course Code	86051	High School Credits		2	Graduation Requirement
						Weighted			
						Credit Type	CTE		
Grade Level		9-12	Prerequisite(s)		Cabinet Making I				
<b>Course Description:</b> Students continue to learn workshop and tool safety and enhance their employability skills as they interpret plans; estimate and select materials; cut and shape stock; assemble, fasten, and install components; install interior finishes; apply wood veneers and plastic laminates; finish surfaces; and transport and install cabinets. The technical, problem-solving, leadership, and creative skills learned in Cabinetmaking can be applied in industries well beyond construction trades and professions and can prepare the student for lifelong learning and success. <b>VDOE Maximum Section Enrollment Applies.</b>									
AHS									
BHS									
CHS									
EMHS		•							


TECHNOLOGY OF ROBOTIC DESIGN (ROBOTICS I)				MCPS Course Code	84210	High School Credits		1	Graduation Requirement	CTE Credential Tests(s) May Be Required
						Weighted				
						Credit Type	CTE			
Grade Level		9-11	Prerequisite(s)							
<b>Course Description:</b> Students engage in the study of computers and microprocessors and their applications to manufacturing, transportation, and communication systems. Topics include computer equipment and operating systems, robotics, programming, control systems, and social/cultural impact of these technologies. Problem-solving activities challenge students to design, program, and interface devices with computer systems. Learning activities include robotics, computer-aided design, computer-aided manufacturing and design, and control of electromechanical devices. <b>The content of this CTE / Technology Education course is the same as the local elective course 98281. VDOE Maximum Section Enrollment Applies.</b>										
Robotics I		98281	This course can be taught as a local elective.							
AHS	•									
BHS	•									
CHS	•									
EMHS	•									

ENGINEERING EXPLORATIONS (ROBOTICS II)				MCPS Course Code	84500	High School Credits		1	Graduation Requirement
						Weighted			
						Credit Type	CTE		
Grade Level	9-12	Prerequisite(s)	Technology of Robotics Design I (Robotics I)						
<p><b>Course Description:</b> In Engineering Explorations I, students examine technology and engineering fundamentals in relation to solving real-world problems. Students investigate engineering history, including major engineering achievements, and they examine the principle engineering specialty fields and their related careers. Students practice engineering fundamentals, using mathematical and scientific concepts, and they apply the engineering design process through participation in hands-on engineering projects. Students communicate project-related information through team-based presentations, proposals, and technical reports. <b>The content of this CTE / Technology Education course is the same as the local elective course 98282.</b></p> <p><b>VDOE Maximum Section Enrollment Applies.</b></p>									
Robotics II		98282	This course can be taught as a local elective.						
AHS	•								
BHS	•								
CHS	•								
EMHS	•								


ENGINEERING STUDIES (ROBOTICS III)				MCPS Course Code	84910	High School Credits		1	Graduation Requirement	CTE Credential Tests(s) May Be Required
						Weighted				
						Credit Type	CTE			
Grade Level	11-12	Prerequisite(s)	Engineering Explorations (Robotics II)							
<b>Course Description:</b> Designed for students who intend to pursue engineering studies in college, Engineering Studies prepares students by emphasizing integration of mathematics, science, and English concepts and skills into engineering problems in a curriculum demanding rigorous study habits and other college-level skills. Students are encouraged to become routinely inquisitive through brainstorming and prototyping. Students practice basic engineering skills and communication of technical information while applying the engineering design process to complete an engineering project. <b>The content of this CTE / Technology Education course is the same as the local elective course 98283. VDOE Maximum Section Enrollment Applies.</b>										
Robotics III		98283	This course can be taught as a local elective.							
AHS	•									
BHS	•									
CHS	•									
EMHS	•									



ROBOTICS EXPERIENCE I				MCPS Course Code	98281	High School Credits		1	Graduation Requirement		
						Weighted					
						Credit Type	Elective		CTE Credential Tests(s) May Be Required		
Grade Level		Prerequisite(s)									
<b>Course Description:</b> Students engage in the study of computers and microprocessors and their applications to manufacturing, transportation, and communication systems. Topics include computer equipment and operating systems, robotics, programming, control systems, and social/cultural impact of these technologies. Problem-solving activities challenge students to design, program, and interface devices with computer systems. Learning activities include robotics, computer-aided design, computer-aided manufacturing and design, and control of electromechanical devices. <b>This course is equivalent to 84210.</b> <b>VDOE Maximum Section Enrollment Applies.</b>											
AHS		<b>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</b>									
BHS											
CHS											
EMHS											

<b>ROBOTICS EXPERIENCE II</b>				<b>MCPS Course Code</b>	98282	<b>High School Credits</b>		1	<b>Graduation Requirement</b>	
						<b>Weighted</b>				
						<b>Credit Type</b>	Elective		<b>CTE Credential Tests(s) May Be Required</b>	
<b>Grade Level</b>			<b>Prerequisite(s)</b>		98281 or 84210					
<b>Course Description:</b> In Engineering Explorations I, students examine technology and engineering fundamentals in relation to solving real-world problems. Students investigate engineering history, including major engineering achievements, and they examine the principle engineering specialty fields and their related careers. Students practice engineering fundamentals, using mathematical and scientific concepts, and they apply the engineering design process through participation in hands-on engineering projects. Students communicate project-related information through team-based presentations, proposals, and technical reports. <b>The content of this CTE / Technology Education course is the same as course 84500.</b> <b>VDOE Maximum Section Enrollment Applies.</b>										
<b>AHS</b>		<b>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</b>								
<b>BHS</b>										
<b>CHS</b>										
<b>EMHS</b>										

ROBOTICS EXPERIENCE III			MCPS Course Code	98283	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		CTE Credential Tests(s) May Be Required	
Grade Level			Prerequisite(s)	98282 or 84500					
<b>Course Description:</b> Designed for students who intend to pursue engineering studies in college, Engineering Studies prepares students by emphasizing integration of mathematics, science, and English concepts and skills into engineering problems in a curriculum demanding rigorous study habits and other college-level skills. Students are encouraged to become routinely inquisitive through brainstorming and prototyping. Students practice basic engineering skills and communication of technical information while applying the engineering design process to complete an engineering project. <b>The content of this CTE / Technology Education course is the same as course 84910. VDOE Maximum Section Enrollment Applies.</b>									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									





PRECISION MACHINING TECHNOLOGY I				MCPS Course Code	85390	High School Credits		2	Graduation Requirement
						Weighted			
						Credit Type	CTE		
Grade Level		10-11	Prerequisite(s)						
<b>Course Description:</b> The student learns basic skills used in machine shop operations. This includes machine shop practices and operation of an engine lathe, milling machines, drill press surface grinders as well as sawing operations. <b>Completion of 85390 and DE8540 required to receive dual enrolled credit for NRCC's MAC 106. VDOE Maximum Section Enrollment Applies.</b>									
AHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							
BHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							
CHS	•								
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							


<b>DE PRECISION MACHINING TECHNOLOGY II</b>				<b>MCPS Course Code</b>	DE8540	<b>High School Credits</b>		2	<b>Graduation Requirement</b>
						<b>Weighted</b>		✓	
						<b>Credit Type</b>	CTE		
<b>Dual Enrolled</b>	✓		<b>NRCC Course Code(s)</b>	MAC 106	<b>College Credits</b>		8	<b>CTE Credential Tests(s) May Be Required</b>	
<b>Grade Level</b>		11-12	<b>Prerequisite(s)</b>	Precision Machining I *					
<b>Course Description:</b> This course is based on the NRCC syllabus for MAC 106 Machine Shop Operations To meet NRCC requirements, Machine Tech II and III, students learn about the manufacturing processes and are introduced to computer numerical control (CNC), milling machines and lathes. They study the strength of materials and metallurgy and can design their own projects from a blueprint to the finished product.									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b>									
<b>NOTE: Completion of 85390 and DE8540 required to receive dual enrolled credit for NRCC's MAC 106.</b> <b>VDOE Maximum Section Enrollment Applies.</b>									
<b>PRECISION MACHINING TECHNOLOGY II</b>		85400	This course may be taken by students who are not eligible to take a dual enrolled course						
<b>AHS</b>	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							
<b>BHS</b>	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							
<b>CHS</b>	•								
<b>EMHS</b>	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							



POWER & TRANSPORTATION			MCPS Course Code	84450	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE			
Grade Level	9-11	Prerequisite(s)							
Course Description: This course explores the ways that energy is converted to power and the ways power is transmitted, controlled, and used through mechanical, fluid, and electrical devices. Students will explore transportation systems, research career opportunities in the power and transportation fields, conduct experiments, and design and build products. VDOE Maximum Section Enrollment Applies.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

AUTO TECH I				MCPS Course Code	85060	High School Credits		2	Graduation Requirement	CTE Credential Tests(s) May Be Required
						Weighted				
						Credit Type	CTE			
Grade Level	10	Prerequisite(s)								
<b>Course Description:</b> Auto Technology is a two-year Career and Technical Education Program for students who are beginning their junior year and plan to complete the program as seniors. The purpose of the program is to prepare students with entry level skills in the automotive field or provide them with the background to continue developing more diagnostic skills as a post-secondary school. Students are expected to develop knowledge of automobile components and how systems perform in order to understand the what, how, and why of automotive operations. As students gain knowledge, they are able to practice and demonstrate their knowledge and skills in the auto lab/shop on mock jobs or customer cars. <b>VDOE Maximum Section Enrollment Applies.</b>										
AHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).								
BHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).								
CHS	•									
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).								

AUTO TECH II				MCPS Course Code	85070	High School Credits		2	Graduation Requirement	
						Weighted				
						Credit Type	CTE			
Grade Level		11	Prerequisite(s)		Automotive Technology I					
Course Description: This course is a continuation of 85060. <b>VDOE Maximum Section Enrollment Applies.</b>										
AHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).								
BHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).								
CHS	•									
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).								

AUTO TECH III				MCPS Course Code	85080	High School Credits		2	Graduation Requirement		
						Weighted					
						Credit Type	CTE		CTE Credential Tests(s) May Be Required		
Grade Level		12	Prerequisite(s)		Automotive Technology II						
Course Description: This course is a continuation of 85070. <b>VDOE Maximum Section Enrollment Applies.</b>											
AHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).									
BHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).									
CHS	•										
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).									

BEAUTY SALON ASSISTANT			MCPS Course Code	85460	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Tests(s) May Be Required	
Grade Level	10-11	Prerequisite(s)							
<b>Course Description:</b> The Beauty Salon Assistant course prepares students for work as an assistant in a hair salon. Students study and prepare in a clinical lab setting, learning practical and manipulative skills. The program emphasizes safety and sanitation, shampooing and conditioning, retailing, inventory control, and receptionist work. Competency completions allow students a certificate for entry-level employment. This course may not constitute part of a VDOE approved completer sequence for graduation. <b>This course requires 140 hours.</b>									
AHS	<i>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</i>								
BHS									
CHS									
EMHS									

COSMETOLOGY I			MCPS Course Code	85270	High School Credits		2	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Tests(s) May Be Required	
Grade Level		10-11	Prerequisite(s)						
<b>Course Description:</b> In this course, students study hair, skin, and nails and their related care. Students are grounded in theory as they prepare to practice procedures in a clinical lab setting or classroom, using manikins for manipulative skill practice. The first-year course emphasizes personal safety, professionalism, and sanitation and disinfection of equipment and facilities. Students develop skills in shampooing and conditioning hair, as well as styling and cutting hair. They are introduced to chemical texture services and develop skills in manicure and pedicure procedures. <b>This course requires 280 hours. To be eligible to take the Board licensing examination, students must complete all three levels to receive a minimum number of 840 instructional hours in Barbering or Cosmetology. VDOE Maximum Section Enrollment Applies.</b>									
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
BHS	•								
CHS	•								
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							

COSMETOLOGY II			MCPS Course Code	85280	High School Credits		2	Graduation Requirement	CTE Credential Tests(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	10-11	Prerequisite(s)	Cosmetology I						
<p><b>Course Description:</b> In this advanced course, students build on their theoretical foundation of general sciences and practices in cosmetology to increase proficiency in hair cutting and styling on live models, with attention to professionalism, client consultation, safety, and infection control. Students are trained in safe chemical processes related to permanent waves, relaxers, soft-curl permanent waves, lightening, and coloring hair. They also develop artistic skills with wigs and hair additions. In addition, students learn to care for skin, hands, and feet, developing experience in providing facials, manicures, pedicures, and nail enhancements. A business management unit focuses on managing the salon. Students can combine classroom instruction and supervised on-the-job training in an approved position or internship with continuing supervision throughout the school year. <b>This course requires 280 hours. To be eligible to take the Board licensing examination, students must complete all three levels to receive a minimum number of 840 instructional hours in Barbering or Cosmetology.</b></p> <p><b>VDOE Maximum Section Enrollment Applies.</b></p>									
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
BHS	•								
CHS	•								
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							

COSMETOLOGY III			MCPS Course Code	85290	High School Credits		2	Graduation Requirement	CTE Credential Tests(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level	11-12	Prerequisite(s)	Cosmetology II						
<b>Course Description:</b> In this advanced course, students build on their theoretical foundation of general sciences and practices in cosmetology to increase proficiency in hair cutting and styling on live models, with attention to professionalism, client consultation, safety, and infection control. Students are trained in safe chemical processes related to chemical texture services and advanced hair coloring techniques. They also develop artistic skills with wigs and hair additions. In addition, students learn to care for skin, hands, and feet, developing experience in providing facials, manicures, pedicures, and nail enhancements. An advanced business management unit focuses on managing the salon. Competency completion prepares the student for the Virginia State Licensing Exam. Students can combine classroom instruction and supervised on-the-job training in an approved position or internship with continuing supervision throughout the school year. Competency completion in 85270, 85280, and 85290 are required preparation for the student for the Virginia State Licensing Exam. <b>This course requires 280 hours. To be eligible to take the Board licensing examination, students must complete all three levels to receive a minimum number of 840 instructional hours in Barbering or Cosmetology. VDOE Maximum Section Enrollment Applies.</b>									
AHS	•	This course requires students to attend BHS for at least a part of the school day (transportation provided).							
BHS	•								
CHS	•								
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							

BARBERING I			MCPS Course Code	87400	High School Credits		2	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Tests(s) May Be Required	
Grade Level	10-11	Prerequisite(s)							
<b>Course Description:</b> Barbering is the study of hair, scalp, and skin. Students study and prepare in a clinical lab setting, using mannequins and live models for manipulative practice. The program emphasizes safety and sanitation, communication, and management skills. Related areas of study include psychology, ethics, and professional image. Competency completions prepare the students to work or apprentice in a local barber shop or beauty salon. <b>This course requires 280 hours. To be eligible to take the Board licensing examination, students must complete all three levels to receive a minimum number of 840 instructional hours in Barbering or Cosmetology. VDOE Maximum Section Enrollment Applies.</b>									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

BARBERING II			MCPS Course Code	87410	High School Credits		2	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Tests(s) May Be Required	
Grade Level	11-12	Prerequisite(s)	Barbering I						
Course Description: Students apply their knowledge of barbering skills in a clinical lab setting, using mannequins and live models for manipulative practice. The program emphasizes safety and sanitation, communication skills, and management of a barber shop or beauty salon. Related areas of study include psychology, ethics, and professional image. Competency completions prepare the students for the Virginia state licensing exam. This course requires 280 hours. To be eligible to take the Board licensing examination, students must complete all three levels to receive a minimum number of 840 instructional hours in Barbering or Cosmetology. VDOE Maximum Section Enrollment Applies.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

BARBERING III			MCPS Course Code	87420	High School Credits		2	Graduation Requirement	
					Weighted				
					Credit Type		CTE		
Grade Level	12	Prerequisite(s)	Barbering II						
<b>Course Description:</b> In this advanced course, students build on their theoretical foundation of general sciences and practices in barbering to increase proficiency in hair cutting and styling on live models, with attention to professionalism, client consultation, safety, and infection control. Students are trained in safe chemical processes related to chemical texture services and advanced hair coloring techniques. They also develop artistic skills with wigs and hair additions. An advanced business management unit focuses on managing the shop. Competency completion prepares the student for the Virginia State Licensing Exam. Students can combine classroom instruction and supervised on-the-job training in an approved position or internship with continuing supervision throughout the school year. <b>This course requires 280 hours. To be eligible to take the Board licensing examination, students must complete all three levels to receive a minimum number of 840 instructional hours in Barbering or Cosmetology. VDOE Maximum Section Enrollment Applies.</b>									
AHS		<b>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</b>							
BHS									
CHS									
EMHS									

CINEMA & PHOTOGRAPHIC PRODUCTION I			MCPS Course Code	86071	High School Credits		1	Graduation Requirement		
					Weighted					
					Credit Type	CTE		CTE Credential Tests(s) May Be Required		
Grade Level	9-12	Prerequisite(s)								
Course Description: The ability to apply principles of visual literacy to produce visual content gives students an advantage in today's global, multimedia society. Students will be taught industry-relevant technical skills and have the opportunity to work with a variety of technology, including digital cameras, design software, and editing tools to stage, shoot, process, print, and present professional-grade images. In addition, students will evaluate and critique photographic work and investigate the history of photography, including (optionally) the fundamentals of film and darkroom development.										
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.								
BHS										
CHS										
EMHS										

CINEMA & PHOTOGRAPHIC PRODUCTION II			MCPS Course Code	86080	High School Credits		2	Graduation Requirement		
					Weighted					
					Credit Type	CTE		CTE Credential Tests(s) May Be Required		
Grade Level	11-12	Prerequisite(s)	Cinema and Photographic Production I							
Course Description: The ability to apply principles of visual literacy to produce visual content gives students an advantage in today's global, multimedia society. In this final year of Commercial Photography, students are taught industry-relevant technical skills and have the opportunity to work with a variety of technology, including digital cameras, lighting, design software, and editing tools to stage, shoot, process, print, and present professional-grade images while developing a portfolio for a related career. In addition, students (optionally) explore the fundamentals of film and darkroom development.										
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.								
BHS										
CHS										
EMHS										

HEATING, VENTILATION, & AIR CONDITIONING (HVACR) I			MCPS Course Code	85030	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Tests(s) May Be Required	
Grade Level	10-11	Prerequisite(s)							
Course Description: this series of courses, you will learn how to design, build and install all of the components necessary to heat and cool a house. In addition, students learn how to diagnose and repair refrigerators, air conditioners, heat pumps and furnaces. This class is great for anyone who wants to work in a hands-on field or for anyone who just wants to know how to do repairs on their own equipment. May dual enroll with NRCC's AIR 121 and AIR 122 for 7 college credits (DE8503).									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

HEATING, VENTILATION, & AIR CONDITIONING (HVACR) II			MCPS Course Code	85040	High School Credits		2	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Tests(s) May Be Required	
Grade Level	11-12	Prerequisite(s)	HVACR I						
Course Description: In this series of courses, you will learn how to design, build and install all of the components necessary to heat and cool a house. In addition, students learn how to diagnose and repair refrigerators, air conditioners, heat pumps and furnaces. This class is great for anyone who wants to work in a hands-on field or for anyone who just wants to know how to do repairs on their own equipment.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

ELECTRICITY I			MCPS Course Code	85330	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Tests(s) May Be Required	
Grade Level	10-11	Prerequisite(s)							
Course Description: Students will learn about electricity and the wiring methods used in residential, commercial and industrial applications, with a special emphasis on the electrical aspects of heating ventilation and air conditioning (HVAC) systems. Students will learn how to safely use electrical test meters to diagnose and repair problems in electrical distribution circuits and equipment control circuitry. May dual enroll with NRCC's ELE 130, ELE 127 and SAF 127 for 8 college credits (DE8533).									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

ELECTRICITY II			MCPS Course Code	85340	High School Credits		2	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Tests(s) May Be Required	
Grade Level	11-12	Prerequisite(s)	Electricity I						
Course Description: Students will learn about electricity and the wiring methods used in residential, commercial and industrial applications, with a special emphasis on the electrical aspects of heating ventilation and air conditioning (HVAC) systems. Students will learn how to safely use electrical test meters to diagnose and repair problems in electrical distribution circuits and equipment control circuitry.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

ELECTRICITY III			MCPS Course Code	85350	High School Credits		2	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Tests(s) May Be Required	
Grade Level	12	Prerequisite(s)	Electricity II						
Course Description: Students will learn about electricity and the wiring methods used in residential, commercial and industrial applications, with a special emphasis on the electrical aspects of heating ventilation and air conditioning (HVAC) systems. Students will learn how to safely use electrical test meters to diagnose and repair problems in electrical distribution circuits and equipment control circuitry.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

## OTHER COURSES


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ECONOMICS & PERSONAL FINANCE			MCPS Course Code	6120V	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Required Elective	CTE Credential Test(s) May Be Required		
Grade Level	9-12	Prerequisite(s)	None						
Course Description: Students learn how to navigate the financial decisions they must face and to make informed decisions related to career exploration, budgeting, banking, credit, insurance, spending, taxes, saving, investing, buying/leasing a vehicle, living independently, and inheritance. This course does not provide CTE credit									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ADVANCED PHYSICAL EDUCATION			MCPS Course Code	76400	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	Preference will be given to 11 <sup>th</sup> and 12 <sup>th</sup> graders.						
<b>Course Description:</b> Advanced physical education includes participation in physical activities that contribute to personal enjoyment and the attainment/maintenance of personal physical activity goals. Students will participate in various forms of exercise as well as physical strength and conditioning, including weight lifting, running, agility, core and abdominal training, and flexibility exercises. <b>This course is an elective course and does not satisfy either of the two HPE courses required for graduation. This course may be repeated for duplicate credits.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								


UNIFIED PHYSICAL EDUCATION			MCPS Course Code	77100	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective	SOL Test(s) Required		
Grade Level	9-12	Prerequisite(s)							
<p><b>Course Description:</b> This elective course combines students of all abilities to participate in developmentally appropriate activities including lifetime activities, physical fitness, and sport. Students will work together to increase competence and confidence in a variety of physical activities. Through ongoing leadership opportunities, members of this course will be empowered to help create a more inclusive and accepting school environment for all students.</p> <p>Students cooperate and work together in groups/teams to:</p> <ul style="list-style-type: none"><li>• Engage in activity specific skills</li><li>• Apply sports rules and strategies to a variety of activities</li><li>• Increase their physical fitness</li><li>• Explain how to make better health and lifestyle choices</li><li>• Improve their social, emotional, and mental wellness</li></ul> <p><b>Note:</b> Unified PE is a fully inclusive program that consists of a population of half of the students with a disability, and half without a disability. It is taught by a certified physical education teacher. All students enter the elective course on equitable social footing where everyone receives a physical education <u>elective</u> credit. HPE 9 &amp; HPE 10 are courses required for graduation. <b>This course does <u>not</u> substitute for either of these required courses. This course may be repeated for duplicate credits.</b></p>									
AHS	•	May be offered at any high school based on sufficient student interest/demand and the availability of qualified staff.							
BHS	•								
CHS	•								
EMHS	•								




DE VIRGINIA TEACHERS FOR TOMORROW / TEACHER CADET				MCPS Course Code	DE9062	High School Credits		1	Graduation Requirement	
				NRCC Course Code(s)	EDU198	Weighted		✓	CTE Credential Tests(s) May Be Required	
						Credit Type	CTE			
Dual Enrolled	✓					College Credits		3		
Grade Level		11-12	Prerequisite(s)	See Below *						
<p><b>Course Description:</b> This course introduces students to a career in teaching and education. Virginia Teachers for Tomorrow (VTfT) fosters student interest, understanding, and appreciation of the teaching profession and allows secondary students to explore careers in education. Students build a foundation for teaching; learn the history, structure and governance of teaching; apply professional teaching techniques in the VTfT classroom and field experience; and reflect on their teaching experiences. Additional educational leadership opportunities are offered through the student organization, Educators Rising. <b>Internships or Clinical Experiences will be provided.</b></p> <p><b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b></p>										
VIRGINIA TEACHERS FOR TOMORROW / TEACHER CADET		90620	This course may be taken by students who are not eligible to take a dual enrolled course							
AHS	•									
BHS	•									
CHS	•									
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).								

DE VIRGINIA TEACHERS FOR TOMORROW II / TEACHER CADET II				MCPS Course Code	DE9072	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	CTE		
Dual Enrolled	✓		NRCC Course Code(s)	EDU200	College Credits			4	CTE Credential Tests(s) May Be Required
Grade Level		11-12	Prerequisite(s)	DE9062 Virginia Teachers for Tomorrow / Teacher Cadet *					
<b>Course Description:</b> Students continue to explore careers in the Education and Training Cluster and pathways. This course provides the opportunity for students to prepare for careers in education as they research postsecondary options, learn about the process of teacher certification in Virginia, and participate in a practicum experience. <b>Internships or Clinical Experiences will be provided.</b>									
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b>									
VIRGINIA TEACHERS FOR TOMORROW II / TEACHER CADET II		90720	This course may be taken by students who are not eligible to take a dual enrolled course						
AHS	•								
BHS	•								
CHS	•								
EMHS	•	This course requires students to attend CHS for at least a part of the school day (transportation provided).							

ENTREPRENEURSHIP EDUCATION			MCPS Course Code	90930	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	CTE		CTE Credential Tests(s) May Be Required	
Grade Level	9-12	Prerequisite(s)							
Course Description: This course introduces students to the exciting world of creating, owning, and launching their own business. Students will learn concepts and techniques for planning an innovative business and living the entrepreneurial lifestyle									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								


INTERNSHIP WORKFOCUS				MCPS Course Code	INTERN	High School Credits		1	Graduation Requirement	CTE Credential Tests(s) May Be Required
						Weighted				
						Credit Type	WBL Elective			
Grade Level	9-12	Prerequisite(s)								
<b>Course Description:</b> High-Quality Work-Based Learning experiences enable students to apply classroom instruction in a real-world business or service-oriented work environment and are available throughout the year. While many students work during the school year, experiences are also available during the summer months. High-Quality Work-Based Learning experiences reinforce Virginia’s 5 C’s—critical thinking, collaboration, communication, creative thinking, and citizenship—by allowing students to apply these skills in a real-world business or service-oriented work environment.										
MCPS offers Work-Based Learning opportunities in accordance with the <a href="#">Virginia Department of Education's CTE High-Quality Work-Based Learning Guide 2023-2024</a> .										
<b>Students enrolled in this experience will be assigned grades according to the MCPS A-F grading scale.</b>										
AHS	•									
BHS	•									
CHS	•									
EMHS	•									


SERVICE LEARNING			MCPS Course Code	98280	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Local Elective		CTE Credential Tests(s) May Be Required	
Grade Level	11-12	Prerequisite(s)							
<b>Course Description:</b> Service-learning experiences enable students to learn and apply academic, social, and personal skills to improve the community, continue individual growth, and develop a lifelong ethic of service. Service learning goes beyond students participating in community service. Students identify an interest and a community need, students develop and complete a service project addressing the community need, students complete structured activities before, during, and after the experience, students reflect and self-assess.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								


COOPERATIVE EDUCATION WORK EXPERIENCE COURSES (Program Specific)				MCPS Course Code	BUSCO AGRCO MKTCO FCSCO HOCCO TAICO TEDCO	High School Credits		1	Graduation Requirement	CTE Credential Tests(s) May Be Required
						Weighted				
						Credit Type	Local Elective			
Grade Level	11-12	Prerequisite(s)								
<b>Course Description:</b> Cooperative Education work experience combines career and technical classroom instruction with paid employment directly related to the classroom instruction. Cooperative Education work experience is available through most high school CTE courses. Courses using the cooperative education method integrate classroom instruction with supervised on-the-job training and the related career and technical student organization. Instruction is developed and conducted in consultation with employers having skills and considerable knowledge of the occupational field represented by the student's career objective. Individualized, written training plans are developed to correlate the classroom instructions with the on-the-job training. Formal and informal evaluations of student progress including feedback are completed to assist learners in improving their work performance. Cooperative Education experiences must be supervised by a CTE teacher who has completed the required Cooperative Education teacher training provided by the VDOE. <b>COOP Experience can only be scheduled when paired with the appropriate subject area CTE Offering. Duration: 36 weeks, minimum of 396 hours on the job</b>										
AHS		<b>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</b>								
BHS										
CHS										
EMHS										

INTRODUCTION TO EDUCATION FOR EMPLOYMENT			MCPS Course Code	90780	High School Credits		1	Graduation Requirement	CTE Credential Tests(s) May Be Required
					Weighted				
					Credit Type	CTE			
Grade Level		Prerequisite(s)							
<b>Course Description:</b> This course introduces students to the concept of work and the process of making informal career and continuing education choices. These choices are required to successfully transition to the workplace. Students are taught ethical behaviors and career-research, job-acquisition, workplace-communication, self-awareness, self-advocacy, customer-service, and life-skills. This course is designed for students needing workplace readiness skills before entering community-based instruction and/or additional courses within career clusters.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

EDUCATION FOR EMPLOYMENT			MCPS Course Code	90850	High School Credits		1	Graduation Requirement	CTE Credential Tests(s) May Be Required	
					Weighted					
					Credit Type	CTE				
Grade Level	9-11	Prerequisite(s)								
Course Description: This course teaches students to make informed career and continuing education choices as they transition from school, gain technical skills, and adapt to the workplace. Students are taught ethical behaviors and career-research, job-acquisition, workplace-communication, self- awareness, self-advocacy, customer-service, and life skills.										
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.								
BHS										
CHS										
EMHS										

STUDENT RESEARCH PROJECT				MCPS Course Code	98260	High School Credits		1	Graduation Requirement
						Weighted			
						Credit Type	Local Elective		
Grade Level	11-12	Prerequisite(s)							
<b>Course Description:</b> Students who participate in a research project during their junior or senior year will work closely with a volunteer mentor from MCPS, a local university or industry. The student and mentor will collaboratively design an appropriate research project for the student. During the summer, the student will work informally, on a relaxed schedule, with the mentor. In the fall, the student will start the formal research project committing at least three hours a week to the project. The research will continue throughout the winter and spring, culminating in regional science fair participation and the submission of a paper to the Virginia Junior Academy of Sciences. It is necessary to document a minimum of 150 clock hours to receive a credit for this experience. Students may either have a period during the school day to work on their research project, and/or they may work outside of the school day. <b>Students enrolled in this experience will be assigned grades according to the MCPS A-F grading scale.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

DE RESEARCH I				MCPS Course Code	DE9826	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type	Local Elective			
Dual Enrolled	✓			NRCC Course Code(s)	SCT 198	College Credits		1		
Grade Level		11-12	Prerequisite(s)		See Below *					
<b>Course Description:</b> This course is based on the NRCC syllabus for Seminar and Project in Science Technology. To meet NRCC requirements, the completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field are required.										
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.</b>										
AHS										
BHS	•	Intended for students taking their 1 <sup>st</sup> year of DE Research but not concurrently enrolled in AP Research								
CHS										
EMHS										

DE RESEARCH II				MCPS Course Code	DE9827	High School Credits		1	Graduation Requirement	
						Weighted		✓		
						Credit Type	Local Elective	SOL Test(s) Required		
Dual Enrolled	✓			NRCC Course Code(s)	SCT 298	College Credits		1		
Grade Level		11-12	Prerequisite(s)		DE Research I *					
<b>Course Description:</b> This course is based on the NRCC syllabus for Seminar and Project in Science Technology. To meet NRCC requirements, the completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field are required.										
<b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.										
AHS										
BHS	•	Intended for students taking their 2 <sup>nd</sup> year of DE Research but not concurrently enrolled in AP Research								
CHS										
EMHS										


STUDY HALL			MCPS Course Code	01011	High School Credits		Graduation Requirement	
					Weighted			
					Credit Type	No Credit		
Grade Level	9-12	Prerequisite(s)						
<b>Description:</b> Study Hall is approved at the discretion of the building principal for students who do not wish to take a full course load in order to have a period in which to work on school assignments and/or seek assistance from a teacher with their school work. Students should otherwise be encouraged to take courses that they have not previously taken when such courses are available and fit into their schedule.								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							


STUDENT AIDE			MCPS Course Code	01010	High School Credits			Graduation Requirement	
					Weighted				
					Credit Type	No Credit			
Grade Level	9-12	Prerequisite(s)							
<b>Description:</b> Student Aide placement is approved at the discretion of the building principal for students who do not wish to take a full course load and who wish to provide assistance to a teacher, the guidance office, the main office, athletic trainer, etc. <b>Students will NOT receive WBL credit for serving as Student Aides.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								


# AP Capstone™ Program



AP Capstone™ is an innovative diploma program from the College Board that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. AP Capstone is built on the foundation of two AP courses — AP Seminar and AP Research — and is designed to complement and enhance the in-depth, discipline-specific study experienced in other AP courses. In **AP Seminar**, students investigate real-world issues from multiple perspectives, gathering and analyzing information from various sources in order to develop credible and valid evidence-based arguments. In **AP Research**, students cultivate the skills and discipline necessary to conduct independent research in order to produce and defend a scholarly academic thesis. Students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing will receive the AP Capstone Diploma. Students who earn scores of 3 or higher in AP Seminar and AP Research but not on four additional AP Exams will receive the AP Seminar and Research Certificate. AP Seminar may also be taken as a stand-alone option.

**IN ORDER TO OFFER THE FOLLOWING COURSES, SCHOOLS MUST APPLY THROUGH THE AP PROGRAM AND BE APPROVED BY THE COLLEGE BOARD AS AN AP CAPSTONE SCHOOL.**

AP SEMINAR				MCPS Course Code	9099A	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	Elective		
Grade Level	11-12	Prerequisite(s)							
<b>Course Description:</b> This course is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments. <b>There is an AP End-of Course Exam for this course for students to take during the AP Exam administration window.</b>									
AHS									
BHS	•								
CHS									
EMHS									

AP RESEARCH				MCPS Course Code	9826A	High School Credits		1	Graduation Requirement
						Weighted		✓	
						Credit Type	Elective		
Grade Level	11-12	Prerequisite(s)	Students must have successfully completed the AP Seminar course.						
<b>Course Description:</b> This course allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research-based investigation to address a research question. In this course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. <b>The course culminates in an academic paper of 4000-5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense.</b>									
AHS									
BHS	•	Intended for students taking AP Research but not concurrently enrolled in DE Research							
CHS									
EMHS									

DE/AP RESEARCH I			AP	MCPS Course Code	DE9826A	High School Credits	1	Graduation Requirement	✓
						Weighted	✓		
						Credit Type	Science (Chemistry)	SOL Test(s) Required	
Dual Enrolled	✓		NRCC Course Code(s)	SCT 198	College Credits		1		
Grade Level		11-12	Prerequisite(s)		See Below *				
Course Description: This course combines 9826A and DE9826									
AHS									
BHS	•	Intended for students taking AP Research while concurrently enrolled in their 1 <sup>st</sup> year of DE Research							
CHS									
EMHS									
<p>There are <b>not</b> two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC. <b>* In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a>) in addition to successful completion of prerequisite courses.</b> This course may carry with it a fee to NRCC.</p>									
<p>DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.</p>									

DE/AP RESEARCH II				MCPS Course Code	DE9827A	High School Credits	1	Graduation Requirement	✓
						Weighted	✓		
						Credit Type	Science (Chemistry)	SOL Test(s) Required	
Dual Enrolled	✓			NRCC Course Code(s)	SCT 298	College Credits		1	
Grade Level		11-12	Prerequisite(s)		See Below *				
Course Description: This course combines 9826A and DE9827									
AHS									
BHS	•	Intended for students taking AP Research while concurrently enrolled in their 2 <sup>nd</sup> year of DE Research							
CHS									
EMHS									
There are <u>not</u> two different groups of students (DE and AP) within a DE/AP course. All students in this combined course will be required to enroll as an NRCC student and must be registered for the corresponding NRCC course(s) by the end of the drop/add period established by NRCC. * In order to enroll in a DE course, students must meet all admission and course placement requirements established by NRCC (see <a href="#">pages 9-11</a> and <a href="#">194-196</a> ) in addition to successful completion of prerequisite courses. This course may carry with it a fee to NRCC.									
DE/AP courses are taught by MCPS high school faculty who have met both the qualifications to teach at the college level and to teach the AP course. The content of combined DE/AP courses will include all topics from the syllabus of the corresponding NRCC course(s) as well as topics from the College Board Advanced Placement Program for the AP course necessary for students to be prepared for the corresponding AP exam. Upon successful completion of a DE/AP course, students will receive college credit from NRCC and may choose to take the AP exam, if desired.									

# VIRTUAL VIRGINIA

Virtual Virginia courses (VVA) are offered for students who are unable to take certain courses at their home school due to availability or scheduling conflicts. A complete list of available course offerings are listed below by content area. In order to complete a virtual class, students will attend their home school's Virtual Education Lab during an established time, or complete the work outside of the regular school day (scheduled as a "0 Period"). While in the lab, students will have online access to the teacher and limited tutorial help from lab staff. Because virtual education is an independent self-paced course, successful students will possess the ability to effectively organize and manage time.

Students in high school (grades 9–12) who meet the course prerequisites and have approval from the principal may enroll in courses in Virtual Virginia's supplemental program through their school counselor. Course prerequisites are established by Virtual Virginia. All students must register for, and participate in, required assessments that correspond to their Virtual Virginia courses at their local school.

**Students enrolled in a high school in MCPS will be approved to take Virtual Virginia courses as "internal" courses only if one or more of the following criteria are met:**

1. The course(s) is/are not offered at the local school
2. A scheduling conflict within the school prevents the student from accessing the desired class and cannot be resolved any other way.
3. The course(s) must be taken during a designated instructional period during the regular school day.

**All other Virtual Virginia courses will be considered as "external" courses and will be subject to all related policies (See [pages 202-205](#)).**

**NOTE:** Only students enrolled in the **MCPS Virtual School Program** will be permitted to enroll in Virtual Virginia's full-time program. All courses approved to be taken as part of the **MCPS Virtual School Program** will be treated as "internal" courses and will not be subject to any limitations described below.

**Virtual Virginia courses typically fill to capacity quickly. Students are encouraged to register for these classes as soon as possible.**

**To see a list of courses offered through Virtual Virginia, and when they are being offered, please go to their website: <https://www.virtualvirginia.org/courses/high-school/>**



MCPS provides a comprehensive academic program to promote the achievement of every student. A key component of our program is ensuring that all secondary students are placed in courses that deliver an appropriate level of challenge. All MCPS high schools collect and analyze multiple pieces of student data in order to make course placement decisions, including grades, SOL test scores, performance on screening assessments, and teacher recommendations.

To address the needs of students who have struggled to meet SOL requirements, MCPS provides needs-based, high school classes to prepare students for success. Parents will be informed of placement decisions for the coming school year prior to the end of the current school year.

MCPS offers different types of courses to provide additional instructional time for students to develop, understand, and apply the concepts and skills of a course, or to develop/strengthen skills and strategies so that they can be successful in high school classes:

**Some courses may be split into a two-course sequence course** (i.e. Algebra I, Part 1 & Part 2) to provide additional instructional time for students to develop, understand, and apply the concepts and skills of the course. The complete curriculum is taught over the span of the two-course sequence, typically a 90-minute block each semester within the same school year. To earn the credit necessary to meet graduation requirements, students must successfully complete both parts of the two-course sequence.

**Supplemental courses** (i.e. Algebra I, Part 1 Supplemental and English 9 Supplemental) are available for pairing with some courses to provide students with additional time and intervention strategies to develop/strengthen the necessary skills and strategies to be successful in the course and as they study the curriculum.

**Stand-alone reading courses** (Literacy Lab) are available at each grade level for those students continuing to struggle with reading. These courses are designed to provide instruction in foundational reading skills to support students in their high school courses. Instruction focuses on word recognition skills, phonological awareness, developing reading fluency, and the language comprehension skills of questioning, visualizing, connecting, predicting, summarizing and monitoring understanding.

# English Intervention Classes

To address the needs of students who have struggled to meet SOL Reading and Writing Test requirements, MCPS provides needs-based, high school classes to prepare students for success. Students are assigned to classes based on SOL test scores and performance on a screening assessment. Parents will be informed if their student has met the placement criteria.

ENGLISH 9 SUPPLEMENTAL			MCPS Course Code	15150	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level	9	Prerequisite(s)	None						
<b>Course Description:</b> This course is for entering ninth-grade students who need to strengthen their reading and writing skills as they study the ninth-grade curriculum. The class will emphasize reading and study strategies, allowing time for sustained silent in-class reading as well as hands-on lessons that appeal to a number of different learning styles. <b>This course is paired with English 9 in a year-long block format.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ENGLISH 10 SUPPLEMENTAL			MCPS Course Code	15160	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level	10	Prerequisite(s)	English 9						
<b>Course Description:</b> This course emphasizes basic reading and writing skills designed to increase student ability as they study the tenth-grade curriculum. Grammar, reading comprehension, vocabulary, and spelling are major class components. The writing process will be emphasized to prepare students for the English 11 writing SOL test. Students will study a variety of literary works. <b>This course is paired with English 10 in a year-long block format.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ENGLISH 11 SUPPLEMENTAL			MCPS Course Code	15157	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level	11	Prerequisite(s)	English 10. Recommended for students at risk of not passing one or both EOC English SOL tests.						
<b>Course Description:</b> This course provides students additional time and intervention strategies to develop the reading and writing skills necessary to be successful on the Grade 11 EOC Reading and Writing SOL tests. Grammar, reading comprehension, vocabulary, spelling, and composition are the core components of the course. Students will read fiction, nonfiction, functional and graphic (e.g., maps, charts, tables) texts both in print and online and will develop their skills to compose a persuasive text online. <b>This course is paired with English 11 in a year-long block format.</b>									
AHS									
BHS	•								
CHS	•								
EMHS	•								

ENGLISH 12 SUPPLEMENTAL			MCPS Course Code	15158	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level	12	Prerequisite(s)	English 11. Recommended for students who did not pass one or both Grade 11 EOC English SOL tests.						
<b>Course Description:</b> This course provides students who did not pass one or both Grade 11 EOC English SOL tests focused time and strategies to develop the reading and writing skills necessary to be successful on these tests. Grammar, reading comprehension, vocabulary, spelling, and composition are the core components of the course. Students will read fiction, nonfiction, functional and graphic (e.g., maps, charts, tables) texts both in print and online and will develop their skills to compose a persuasive text online. <b>This course is paired with English 12 in a year-long block format.</b>									
AHS									
BHS	•								
CHS	•								
EMHS									

LITERACY LAB 9			MCPS Course Code	15151	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level	9	Prerequisite(s)	None						
<b>Course Description:</b> This course is a stand-alone reading course designed to provide instruction in foundational reading skills to support students in their high school courses. Instruction will focus on word recognition skills, phonological awareness, developing reading fluency, and the language comprehension skills of questioning, visualizing, connecting, predicting, summarizing and monitoring understanding.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

LITERACY LAB 10			MCPS Course Code	15152	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level	10	Prerequisite(s)	None						
<b>Course Description:</b> This course is a stand-alone reading course designed to provide instruction in foundational reading skills to support students in their high school courses. Instruction will focus on word recognition skills, phonological awareness, developing reading fluency, and the language comprehension skills of questioning, visualizing, connecting, predicting, summarizing and monitoring understanding.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

LITERACY LAB 11			MCPS Course Code	15155	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective		SOL Test(s) Required	
Grade Level	11	Prerequisite(s)	None						
<b>Course Description:</b> This course is a stand-alone reading course designed to provide instruction in foundational reading skills to support students in their high school courses. Instruction will focus on word recognition skills, phonological awareness, developing reading fluency, and the language comprehension skills of questioning, visualizing, connecting, predicting, summarizing and monitoring understanding.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

LITERACY LAB 12			MCPS Course Code	15156	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	English Elective	SOL Test(s) Required		
Grade Level	12	Prerequisite(s)	None						
<b>Course Description:</b> This course is a stand-alone reading course designed to provide instruction in foundational reading skills to support students in their high school courses. Instruction will focus on word recognition skills, phonological awareness, developing reading fluency, and the language comprehension skills of questioning, visualizing, connecting, predicting, summarizing and monitoring understanding.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

LEARNING STRATEGIES			MCPS Course Code	98284	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Local Elective		SOL Test(s) Required	
Grade Level		Prerequisite(s)							
<b>Course Description:</b> This elective course is structured to provide each student with instruction in specific learning strategies, a personalized content curriculum, and independent learning opportunities. The objectives of the course/s will be to provide students an opportunity to practice and apply a variety of Pathway Learning Strategies to enhance their academic success. They also will be provided the opportunity to explore, practice, and apply selected curricular resources to strengthen their academic skills. <b>Students enrolled in this course will be assigned grades according to the MCPS A-F grading scale. This course may be repeated for credit.</b>									
AHS		<b>Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.</b>							
BHS									
CHS									
EMHS									

FRESHMAN SEMINAR			MCPS Course Code	98285	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Local Elective		SOL Test(s) Required	
Grade Level		Prerequisite(s)							
Course Description: Freshman Seminar is a class developed for all ninth graders to help provide a positive and successful transition to high school. Students will develop positive connections, interpersonal skills, team leadership negotiations, organizational, problem solving and study skills. The goal of Freshman Seminar is to build a strong foundation for success in high school.									
AHS		Not currently offered due to multiple factors, including historical student interest, availability of certified staff, and/or current resources. Students interested in this course should see their school counselor.							
BHS									
CHS									
EMHS									

# Math Intervention Classes

MCPS provides a comprehensive mathematics program to promote the achievement of every student. A key component of our program is ensuring that all secondary students are placed in mathematics courses that deliver an appropriate level of challenge. All MCPS high schools collect and analyze multiple pieces of student data in order to make placement decisions, including grades, test scores, and teacher recommendations. Parents will be informed of mathematics placement decisions for the coming school year prior to the end of the current school year. Students who have successfully completed Algebra II may register for elective Mathematics courses of their choosing.

ALGEBRA I, PART 1 SUPPLEMENTAL			MCPS Course Code	31330	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Math Elective		SOL Test(s) Required	
Grade Level	9	Prerequisite(s)							
<b>Course Description:</b> This course is for entering ninth-grade students who need to strengthen their math skills as they begin their study of Algebra. Using assessment and intervention strategies, this course will provide instruction and targeted support on prerequisite and current math concepts and skills. <b>This course is paired with Algebra I, Part 1 in a year-long block format.</b> Students who successfully complete Algebra I, Part 1 will take Algebra I, Part 2 the following school year.									
AHS	•	Students who successfully complete Algebra I, Part 1 may take Algebra I, Part 2 as a year-long (45-min) course the following school year <b>OR</b> as a Semester I course the following school year which may be followed by AFDA in Semester II.							
BHS	•	Students who successfully complete Algebra I, Part 1 will take Algebra I, Part 2 as a Semester I course the following school year which may be followed by AFDA in Semester II.							
CHS	•	Students who successfully complete Algebra I, Part 1 may take Algebra I, Part 2 as a year-long (45-min) course the following school year <b>OR</b> as a Semester I course the following school year which may be followed by AFDA in Semester II.							
EMHS	•	Students who successfully complete Algebra I, Part 1 will take Algebra I, Part 2 as a Semester I course the following school year which may be followed by AFDA in Semester II.							

ALGEBRA I PART 1			MCPS Course Code	31310	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Math Elective		SOL Test(s) Required	
Grade Level	9	Prerequisite(s)							
<b>Course Description:</b> This course is the first of a two-course sequence designed to provide additional instructional time for students to develop, understand, and apply the concepts and skills of Algebra I. The complete Algebra I curriculum is taught over the span of the two-course sequence. <b>To earn a Math credit that fulfills graduation requirements, students must successfully complete Part 2 of the two-course sequence.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ALGEBRA I PART 2			MCPS Course Code	31320	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Math		SOL Test(s) Required	
Grade Level	9-10	Prerequisite(s)							
<b>Course Description:</b> This course is the second of a two-course sequence designed to provide additional instructional time for students to develop, understand, and apply the concepts and skills of Algebra I. The complete Algebra I curriculum is taught over the span of the two-course sequence. Algebra I Part 2 includes a review of the Algebra I Part 1 content. <b>To earn a Math credit that fulfills graduation requirements, students must successfully complete Part 2 of the two-course sequence.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

GEOMETRY PART 1			MCPS Course Code	31440	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Math Elective		SOL Test(s) Required	
Grade Level	9-10	Prerequisite(s)							
<b>Course Description:</b> This course is the first of a two-course sequence designed to provide additional instructional time for students to develop, understand, and apply the concepts and skills of Geometry. The complete Geometry curriculum is taught over the span of the two-course sequence. <b>To earn a Math credit that fulfills graduation requirements, students must successfully complete Part 2 of the two-course sequence.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

GEOMETRY PART 2			MCPS Course Code	31450	High School Credits		1	Graduation Requirement	✓
					Weighted				
					Credit Type	Math		SOL Test(s) Required	✓
Grade Level	9-10	Prerequisite(s)							
Course Description: This course is the second of a two-course sequence designed to provide additional instructional time for students to develop, understand, and apply the concepts and skills of Geometry. The complete Geometry curriculum is taught over the span of the two-course sequence. Geometry Part 2 includes a review of the Geometry Part 1 content. To earn a Math credit that fulfills graduation requirements, students must successfully complete Part 2 of the two-course sequence.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

**Project AIM (Academic Intervention Model)** is a collaborative endeavor among the four Montgomery County High Schools to assist students who have encountered “roadblocks” on the path to graduation.

Through Project AIM, students are provided with an opportunity to work on individualized coursework using Edmentum courseware and supplemental resources that allows them to recover course credit in a course they are failing or have failed by demonstrating mastery of course content. Students who have fallen behind their graduation cohort may take courses required for graduation through Project AIM in order to graduate on time. Edmentum courseware can also be used to provide remediation to students prior to taking a retest of an EOC test required for graduation.

A school-based team screens all referrals to determine student eligibility and potential for success, and then forwards their recommendations to the MCPS Director of Secondary Education for review and final approval. Once a student is approved for Project AIM, the school counselor will review the student’s transcript and confer with the principal to develop an on-time graduation plan with the student. Based on this plan, the student’s class schedule will be changed to include the appropriate combination of courses that will allow the student the opportunity to graduate on time. The SAP Team will monitor the student’s progress to determine if any additional resources and support are needed to ensure the student’s success on his/her path to graduation.

Because all Project AIM courses are online, they provide flexible scheduling options. Most students will have time designated in their schedule during the regular school day to work on Project AIM coursework in their home school’s Virtual Ed Lab; however, students also may work on Project AIM coursework from home or anywhere else they have access to a computer with high-speed internet. Students who complete most or all of their Project AIM coursework off-site must meet with an assigned teacher on a scheduled basis. Exactly how often and where the students take Project AIM courses will be determined as part of each individual’s on-time graduation plan.

To be eligible for Project AIM, students must be enrolled in a Montgomery County high school. They remain enrolled at their home school and have all of the same rights and responsibilities as all other students. While on the school campus, Project AIM students must follow all MCPS policies and school rules. They also will be afforded all of the opportunities to which other students have access. To participate in VHSL activities, Project AIM students must meet the requirements of the Virginia High School League; the school administration will determine student eligibility based on VHSL regulations.

**NOTE:** The intent of Project AIM is **NOT** to resolve scheduling problems. The appropriate solutions to scheduling problems are Virtual Virginia, external courses, etc.

**Project AIM teachers will design an appropriate individualized plan of study for each student as follows:**

**CREDIT INTERVENTION:** Students for whom failure in a course required for graduation is imminent after enrollment in ≤50% of the course.

**CREDIT RECOVERY:** Students who have previously failed a course, but have passed the EOC SOL test. Students who have previously passed a course, but have not yet passed the EOC SOL test may be assigned specific work in Edmentum for remediation prior to taking a retest. Students who have failed both a course and the EOC SOL test will need to retake the course in Summer School or the following term if the course is required for graduation. These students may be considered for Project AIM Credit Acquisition, if part of an on-time graduation plan developed by the principal or SAP Team.

**CREDIT ACQUISITION:** Students who need additional course credits in order to graduate with their cohort may take certain Project AIM courses as **NEW** courses (with principal approval). Students who are failing a course after enrollment in >50% of the course and/or did not complete sufficient work in the original course may **RESTART** certain courses in Project AIM.





**The following courses are offered for credit through Project AIM.** Only approved Project AIM Courses taught by Project AIM teachers may be categorized as a Project AIM course. Additional courses may be requested by the principal and require the approval of the Director of Secondary Education. Project AIM courses are developed and taught by MCPS teachers certified in the content areas of English, Mathematics, Science, Social Studies, Fine Arts, and CTE. All courses align with the Virginia Standards of Learning. Students must take required End-of-Course (EOC) SOL tests associated with a Project AIM Course.

Course	Course Code	Course Description	Project AIM Teacher's Home School
<b>ENGLISH 9</b>	PA1130	Same as 11300 except the course is taught through Project AIM. One English Credit	CHS
<b>ENGLISH 10</b>	PA1140	Same as 11400 except the course is taught through Project AIM. One English Credit	
<b>ENGLISH 11</b>	PA1150	Same as 11500 except the course is taught through Project AIM. One English Credit	
<b>ENGLISH 12</b>	PA1160	Same as 11600 except the course is taught through Project AIM. One English Credit	
<b>WORLD HISTORY/ GEOGRAPHY I</b>	PA2215	Same as 22150 except the course is taught through Project AIM. One History/Social Studies Credit	EMHS
<b>VIRGINIA &amp; U.S. HISTORY</b>	PA2360	Same as 23600 except the course is taught through Project AIM. One History/Social Studies Credit	
<b>VIRGINIA &amp; U.S. GOVERNMENT</b>	PA2440	Same as 24400 except the course is taught through Project AIM. One History/Social Studies Credit	
<b>ALGEBRA I</b>	PA3130	Same as 31300 except the course is taught through Project AIM. One Math Credit	AHS
<b>ALGEBRA, FUNCTIONS, &amp; DATA ANALYSIS</b>	PA3134	Same as 31340 except the course is taught through Project AIM. One Math Credit	
<b>ALGEBRA II</b>	PA3135	Same as 31350 except the course is taught through Project AIM. One Math Credit	
<b>GEOMETRY</b>	PA3143	Same as 31430 except the course is taught through Project AIM. One Math Credit	

<b>EARTH SCIENCE</b>	PA4210	Same as 42100 except the course is taught through Project AIM. One Earth Science Credit	BHS
<b>BIOLOGY I</b>	PA4310	Same as 43100 except the course is taught through Project AIM. One Biology Credit	
<b>BIOLOGY II ECOLOGY</b>	PA4340	Same as 43400 except the course is taught through Project AIM. One Biology Credit	
<b>HEALTH &amp; PHYSICAL EDUCATION 9</b>	PA7300	Same as 73000 except the course is taught through Project AIM. One HPE Credit	Any Teacher Certified in HPE at Student's Home School
<b>HEALTH &amp; PHYSICAL EDUCATION 10</b>	PA7410	Same as 74050 except the course is taught through Project AIM and does not include Driver's Education. One HPE Credit	
<b>INTRO TO FINE ARTS</b>	PA9198	Same as 91980 except the course is taught through Project AIM. One Credit	MONT CENTRAL
<b>ECONOMICS &amp; PERSONAL FINANCE</b>	PA6120	Same as 61200 except the course is taught through Project AIM One Credit	AHS
<b>WORD PROCESSING</b>	PA6625	Same as 66250 except the course is taught through Project AIM. One CTE Credit	Any Teacher Certified in Word Processing at Student's Home School

# SPECIAL EDUCATION COURSES

The Special Education Program is designed for students who are eligible for an Individualized Education Plan (IEP) based on formal evaluation and determination of eligibility by the IEP Committee. Each student's IEP team will determine which of the following courses will be included in a student's Program of Studies.

FUNCTIONAL ENGLISH 9			MCPS Course Code	78710	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level	9	Prerequisite(s)	None						
Course Description: A relevance-based English/Language Arts program emphasizing essential reading, writing, and speaking skills and driven by the Individual Education Plan.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

FUNCTIONAL ENGLISH 10			MCPS Course Code	78711	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level	10	Prerequisite(s)	None						
Course Description: A relevance-based English/Language Arts program emphasizing essential reading, writing, and speaking skills and driven by the Individual Education Plan.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

FUNCTIONAL ENGLISH 11			MCPS Course Code	78712	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level	11	Prerequisite(s)	None						
Course Description: A relevance-based English/Language Arts program emphasizing essential reading, writing, and speaking skills and driven by the Individual Education Plan.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

FUNCTIONAL ENGLISH 12			MCPS Course Code	78713	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level	12	Prerequisite(s)	None						
Course Description: A relevance-based English/Language Arts program emphasizing essential reading, writing, and speaking skills and driven by the Individual Education Plan.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

FUNCTIONAL MATH 9			MCPS Course Code	78720	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level	9	Prerequisite(s)	None						
Course Description: A relevance-based Math program emphasizing essential consumer, daily living, and functional skills and driven by the Individual Education Plan.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

FUNCTIONAL MATH 10			MCPS Course Code	78721	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level		10	Prerequisite(s)	None					
Course Description: A relevance-based Math program emphasizing essential consumer, daily living, and functional skills and driven by the Individual Education Plan.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

FUNCTIONAL MATH 11			MCPS Course Code	78722	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level		11	Prerequisite(s)	None					
Course Description: A relevance-based Math program emphasizing essential consumer, daily living, and functional skills and driven by the Individual Education Plan.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

FUNCTIONAL MATH 12			MCPS Course Code	78723	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level	12	Prerequisite(s)	None						
Course Description: A relevance-based Math program emphasizing essential consumer, daily living, and functional skills and driven by the Individual Education Plan.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

FUNCTIONAL SCIENCE			MCPS Course Code	78220	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	None						
Course Description: A relevance-based Science course emphasizing basic concepts from Life, Physical and Earth Sciences and driven by the Individual Education Plan.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

FUNCTIONAL SOCIAL STUDIES			MCPS Course Code	78230	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level		9-12	Prerequisite(s)	None					
Course Description: A relevance-based Social Studies course emphasizing basic concepts of citizenship, community, and consumerism, and driven by the Individual Education Plan.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

PERSONAL LIVING & FINANCE			MCPS Course Code	31200	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level		9-12	Prerequisite(s)	None					
Course Description: This course is only offered at Montgomery Central									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ADAPTIVE PE			MCPS Course Code	77000	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	Doctor or Special Education Recommendation						
<b>Course Description:</b> This course consists of an individualized program of exercises and activities for those who are recommended for the class by a doctor. Modified sports activities will be presented to improve the student's limiting condition. Emphasis will be placed on weight training, motor skill development, and individual sports participation. Course difficulty ranges from mild to moderate depending on the student's physical challenge. <b>NOTE: This course will not count as one of the two required HPE credits.</b>									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

OCCUPATIONAL WORK & FAMILY STUDIES I / DEVELOPMENT			MCPS Course Code	78960	High School Credits		1	Graduation Requirement
					Weighted			
					Credit Type	Elective		SOL Test(s) Required
Grade Level	9-12	Prerequisite(s)	None					
<b>Course Description:</b> Students will gain knowledge needed to increase independent functioning within the community and the home. Functional math and Language skills, personal financing, job skills, self-care, self-advocacy, and appropriate social skills will be taught through numerous modes of hands-on activities. Leisure skills and family unit responsibilities will also be taught to ensure self-fulfillment and the sense of belonging to community, home, school, and work. <b>NOT FOR VOCATIONAL CREDIT OR VOCATIONAL TESTING.</b>								
AHS	•							
BHS	•							
CHS	•							
EMHS	•							

OCCUPATIONAL WORK & FAMILY STUDIES II / DEVELOPMENT			MCPS Course Code	78961	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	None						
Course Description: Continuation of 82220. NOT FOR VOCATIONAL CREDIT OR VOCATIONAL TESTING.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

COMMUNITY BASED INSTRUCTION			MCPS Course Code	78580	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	Elective		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)	None						
Course Description: A course which provides students direct instruction in accessing and using community resources (like transportation, libraries, stores, recreation facilities) and basic vocational and job skills. NOTE: Use 7858A for 2 <sup>nd</sup> credit attempted in same calendar school year at 4x4 Block Schools.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

# ENGLISH AS A SECOND LANGUAGE (ESL)

ESL I			MCPS Course Code	57100	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language	SOL Test(s) Required		
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> This course is designed to teach English to students whose first language is not English. The course focuses on acquiring skills in listening, speaking, reading, and writing and emphasizes vocabulary development and English grammar and word order (syntax). Students practice oral communication and develop listening comprehension by learning sounds, intonation, and rhythm. Students also learn skills to help them adjust to their new situation. Students qualify for this course based on their performance on an English language assessment.									
<b>NOTE:</b> This introductory course is designed for students who are beginning to learn to speak English. The offering is in keeping with the Virginia State Board of Education’s recognition of ESL as a foreign language for high school graduation. Students may earn a foreign language credit for the course. However, this course may not satisfy foreign language requirements at some colleges and universities. Also, for an ESL course to earn a foreign language credit, it must be taught by a certified ESL teacher and be scheduled as a course.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ESL II			MCPS Course Code	57200	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level		9-12	Prerequisite(s)						
<b>Course Description:</b> Students qualify for this course based on their performance on an English language assessment. The second year of ESL will further develop the four basic communications skills (speaking, listening, reading, and writing) by broadening the formal study of grammar and continued vocabulary building. Students will continue to develop their listening and reading comprehension and practice oral communication. They will develop their writing skills to communicate in their content classes and prepare for the Grade 11 Writing EOC state SOL assessment.									
<b>NOTE:</b> Students may be assessed to enter this course without taking ESL I. This offering is in keeping with the Virginia State Board of Education’s recognition of ESL as a foreign language for high school graduation. Students may earn a foreign language credit for the course. However, this course may not satisfy foreign language requirements at some colleges and universities.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								



ESL III			MCPS Course Code	57300	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> This course will introduce advanced grammatical structures and vocabulary and encourage creative expression as students both write short compositions and give oral presentations on a variety of topics. Students will continue to read in English, with a focus on American Literature and authentic informational and functional texts. Vocabulary development will also be a key component of this course.									
<b>NOTE:</b> Students may be assessed to enter this course without taking ESL I or II. This offering is in keeping with the Virginia State Board of Education’s recognition of ESL as a foreign language for high school graduation. Students earn a foreign language credit for the course. However, this course may not satisfy foreign language requirements at some colleges and universities.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

ESL IV			MCPS Course Code	57310	High School Credits		1	Graduation Requirement	
					Weighted				
					Credit Type	World Language		SOL Test(s) Required	
Grade Level	9-12	Prerequisite(s)							
<b>Course Description:</b> In this course, students will continue to improve their listening, speaking, reading, and writing skills through the study of more complex grammatical structures and vocabulary. Students will read a wide variety of fiction, informational, and functional texts and extend writing skills through composing, revising, and editing formal compositions.									
<b>NOTE:</b> This offering is in keeping with the Virginia State Board of Education’s recognition of ESL as a foreign language for high school graduation. Students earn a foreign language credit for the course. However, this course may not satisfy foreign language requirements at some colleges and universities.									
AHS	•								
BHS	•								
CHS	•								
EMHS	•								

# APPENDIX



### Request to Omit High School Credit Courses Taken in Middle School from a Student's Transcript

MCPS Policy 6-6.2 provides for the removal of high school credit courses taken in middle school from a student's transcript as follows:

- Parents/Guardians may complete the form below to request that any high school credit course taken in middle school be omitted from their child's transcript, and submit it to the high school registrar by **October 1** following the completion of 8<sup>th</sup> grade. If no changes are requested, please check the column "KEEP the course on my child's high school transcript" for each high school credit course taken in middle school.
- Any high school credit course taken in middle school for which a final grade of F was reported, will automatically be removed from the student's transcript.
- When a student re-takes and completes any course in high school that was taken for high school credit in middle school, the middle school grade will automatically be removed from the student's transcript and be replaced by the high school final grade if it is higher than the middle school final grade.
- Parents of students who transfer to Montgomery County Public Schools at the beginning of the 9<sup>th</sup> grade year must request that grades for high school credit courses taken in middle school be omitted from the student's transcript within ten (10) calendar days of enrollment.

*The school principal in cases of extenuating circumstances may grant exceptions to these provisions.*

Middle School in Which Course was Taken: \_\_\_\_\_

Student Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

I request that the action(s) indicated below be taken for each high school credit course taken in middle school:

Course Name	Year Taken	Final Course Grade	OMIT the course from my child's high school transcript	KEEP the course on my child's high school transcript

**Please Note:** Once a course has been omitted from a transcript, the grade, credit, and any verified credit (earned for passing an SOL End-of-Course Test) associated with that course will be removed, can no longer be counted toward graduation requirements, and cannot be restored.

\_\_\_\_\_  
Parent/Guardian Signature

\_\_\_\_\_  
Date

Revised 9/12/17



## MCPS Application/Request to Retake a Course for Grade Replacement

Students in grades 9-12 may retake any high school credit course in an effort to earn a higher grade (MCPS Policy 6-6.2). When a student retakes and completes the exact same course, the final course grade (A-F) earned for the retake course grade will replace the final course grade (B-F) previously earned in the original course. No additional credit will be granted for the successful completion of a retake course if credit was previously earned.

**Please review the information from MCPS Policy 6-6.2 below carefully.** Students and their parents/guardians are responsible for understanding, and must agree to, all requirements regarding Grade Replacement

**Limitations:** The availability of all courses through MCPS is based on sufficient student interest/demand and the availability of qualified staff each school year. Therefore, there is no guarantee that a course will be available for students to retake through MCPS in any given school year. Courses offered through MCPS also may have limited availability to students who wish to retake a course. Students taking a course for the first time will be given priority for enrollment in courses offered through MCPS that have limited capacity. A student also may not be able to enroll in a course that is offered through MCPS due to schedule conflicts.

**Eligibility & Requirements:** In order to be eligible for retaking a course for Grade Replacement, the student and his/her parent/guardian must agree to abide by the requirements outlined in this policy. Failure to abide by all requirements and designated deadlines for prior approval will result in failure to have the course grade replaced. Courses retaken without prior approval will not be recognized by MCPS for Grade Replacement.

- Grade Replacement only applies when a student retakes the full course at the **same level as the original course** (Honors, AP, etc.). The retake course can be in any format available (in-person, virtual, internal/external, etc.) and with any teacher as long as it is the same course at the same level as the original course. MCPS Policy (7-2.4) on external courses applies to retake courses.
- Once a student begins a retake course, it may be dropped only as outlined in the "Dropping Courses" section of MCPS Policy 6-6.2. When a retake course is dropped **within the established drop window**, the original final course grade will be restored.
- **Once the established drop window has passed**, the student must complete the retake course or be subject to losing credit for the course. In such cases, the original course grade and credit cannot be restored.
- Students are required to complete the retake course **prior to taking the next level course** in that subject area or the next course in a sequence. Students must complete the retake course before it can be used as a **prerequisite for another course**.
- Upon completion of the retake course, the student's transcript will reflect only the final letter grade (A-F) earned for the retake course; **the original course will remain listed on the transcript with the grade of "NG"**.
- Upon completion of the retake course, only the letter grade (A-F) earned for the retake course will be included in the student's grade point average ("GPA"). (See MCPS Policy 6-6.3 for how GPA is calculated).
- **The number of courses retaken for Grade Replacement will be limited to a maximum of 6 courses total during high school (grades 9-12).**

**Approval Process:** Prior to retaking a course for Grade Replacement, the student must complete the *MCPS Application/Request to Retake a Course for Grade Replacement* form and submit it to the school counselor. After discussion with the school counselor, the form will be forwarded to the principal for approval.

**The approval process must be completed in time for the student to attend the first day of the Repeat Course class.**

### MCPS Application/Request to Retake a Course for Grade Replacement

Student Name: \_\_\_\_\_ School: \_\_\_\_\_ Current Grade: \_\_\_\_\_

Parent/Guardian Name: \_\_\_\_\_

Home Address: \_\_\_\_\_

Phone #: \_\_\_\_\_ Email: \_\_\_\_\_

Please provide the following information:

Official Title of Course (and Course Number) <u>Previously Taken</u> : _____
School Year Course Taken: _____ Start Date of Course: _____ End Date of Course: _____
Where was this course taken (School Name, External Organization Name)? _____
Format of Course (i.e. In-Person, Online): _____ Grade Earned: _____
Did you complete the entire course? _____ If not, please explain why you did not complete the course: _____
Please state clearly your reason for requesting to retake this course for Grade Replacement: _____
Official Title of Course (and Course Number) <u>Requesting to Retake</u> for Grade Replacement: _____

By signing below, we understand and agree to the requirements regarding Grade Replacement outlined in MCPS Policy 6-6.2. We also acknowledge that MCPS cannot guarantee the availability of the desired course, the understanding of the drop period and the consequences of not completing the course. The student also acknowledges the following:

- A commitment to completing the course and their agreement to have the original course grade removed from their transcript and to accept the final grade for the retake course recorded on their transcript and calculated in their GPA.
- An understanding that no additional credit will be granted for the successful completion of a retake course if credit was previously earned, and that Virginia High School League (VHSL) rules prohibit retaking a course for which a student has received prior credit from being counted toward VHSL eligibility requirements.

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### MCPS Application/Request to Retake a Course for Grade Replacement

#### OFFICE USE ONLY

Students who request to retake a course with Grade Replacement must be counseled about realistic expectations regarding their course load and schedule.

Number of courses previously retaken for Grade Replacement: \_\_\_\_\_

School Counselor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Principal Signature: \_\_\_\_\_ Date: \_\_\_\_\_

After approval, please check to ensure that all of the following has been completed:

- ☐ Number of courses previously retaken for Grade Replacement verified (\_\_\_\_\_) *Maximum of 6 allowed*
- ☐ Copy of this approved form placed in student cumulative file
- ☐ Copy of this approved form provided to student and parent
- ☐ Copy of this approved form provided to the MCPS Director of Secondary Education
- ☐ Once the established drop window has passed, the original course grade is changed to "NG" on the transcript (the original course must remain listed on the transcript)
- ☐ Upon completion of the retake course, the retake course and the final letter grade (A-F) earned for the retake course will be on student's transcript

**Middle School Teacher Evaluation/Recommendation**  
**8<sup>th</sup> Grade Student Applying for Art II Placement in 9<sup>th</sup> Grade**  
This page to be completed by the student's current middle school art teacher(s)

[Table of Contents](#)

Student Name:		Possible Points (100)	Points Awarded (Circle a number for each row)				
			No	Below Average	Average	Above Average	Excellent
<b>Middle School Teacher Recommendation</b>	Works independently to problem solve	12	0	3	6	9	12
	Generates own ideas from given project guidelines	8	0	2	4	6	8
	Independently experiments with ideas	7	0	1	3	5	7
	Independently experiments with techniques	7	0	1	3	5	7
	Challenges self with goals for class projects	8	0	2	4	6	8
	Committed to completing quality work	8	0	2	4	6	8
	Focus on work in class	7	0	1	3	5	7
	Overall maturity	7	0	1	3	5	7
	Readily accepts difficulties as challenges to overcome	7	0	1	3	5	7
	Readily accepts challenges to work in a variety of media	7	0	1	3	5	7
	Ability to handle criticism of work maturely and productively	6	0	1	2	4	6
	"Coachable": listens to and applies teacher advice/criticism	6	0	1	2	4	6
	Asks for help when appropriate	6	0	1	2	4	6
	Ability to provide helpful criticism and/or discussion in group critique settings	4	0	1	2	3	4

TOTAL NUMBER OF POINTS RECEIVED

Any additional information or comments:

Please select one of the following options:

☐ Art I will be the most appropriate course for this student to take in high school.

☐ This student is recommended for direct admission into Art II in high school.

\_\_\_\_\_  
Middle School Art Teacher Signature

\_\_\_\_\_  
Date



# High School Teacher Review/Evaluation of Portfolio

## 8<sup>th</sup> Grade Student Applying for Art II Placement in 9<sup>th</sup> Grade

This page to be completed by the evaluating high school art teacher(s)

Student Name:		Possible Points (300)	Points Awarded (Circle a number for each row)				
			No	Below Average	Average	Above Average	Excellent
High School Teacher Portfolio Review	Understanding of and ability to describe contour.	30	0	7	14	21	30
	Evidence of independent thought and creative ideas	54	0	13	26	39	54
	Understanding of and ability to describe proportion.	27	0	6	13	20	27
	Understanding of and ability to describe perspective.	27	0	6	13	20	27
	Understanding of and ability to work with color.	27	0	6	13	20	27
	Understanding of and ability to work with value.	27	0	6	13	20	27
	Understanding of and ability to create strong and successful compositions.	30	0	7	14	21	30
	Quality work created independently outside of class/school.	27	0	6	13	20	27
	Understanding of and ability to utilize the principles of design.	21	0	5	10	15	21
	Care taken to maintain presentation quality of work submitted.	15	0	3	7	12	15
	Understanding of and ability to work with a variety of media.	15	0	3	7	12	15

NUMBER OF POINTS RECEIVED (HS Teacher Portfolio Review)

NUMBER OF POINTS RECEIVED (MS Teacher Recommendation)

TOTAL NUMBER OF POINTS RECEIVED

TOTAL NUMBER OF POINTS REQUIRED

240

Please select one of the following options:

☐ Art I will be the most appropriate course for this student to take in high school.

☐ This student is recommended for direct admission into Art II in high school.

\_\_\_\_\_  
High School Art Teacher Signature

\_\_\_\_\_  
Date



# Dual Enrollment Admissions and Eligibility

Information from NRCC (Effective for Fall 2022)

Virginia Community College System (VCCS) policy allows for high-school based dual enrollment partnerships. Colleges and school divisions may develop contractual agreements to offer dual enrollment program pathways, academies, and courses at the high school. Such offerings may be taught by approved high school teachers who meet Virginia Community College faculty credential requirements and are qualified by the college to teach course(s) in the program of study.

College faculty and administrators are responsible for identifying high school dual enrollment program offerings; selecting and qualifying high school faculty to teach college courses; professional development of dual enrollment faculty; and oversight and evaluation of program standards, including assessment of student learning outcomes, program learning outcomes, and instructional effectiveness.

Virginia Community College Policy 6.6 allows **high school juniors and seniors** who meet each of the following criteria to register in college-level credit-bearing courses:

1. The student submits an NRCC college application.
2. The student is a rising high school junior or senior.
  - a. The high school student has permission of the principal or designee and the parent.
3. The student demonstrates readiness for each college-level credit-bearing course in which they want to enroll. High school students are not eligible to enroll in developmental or direct placement co-requisite English and math courses.

In demonstrating readiness, a student must meet one of the criteria established for each type of course in which they want to be registered. **The tables below list the criteria.**

4. In addition to meeting the eligibility criteria below, a dual enrollment student must meet all course pre/co-requisites as listed in the VCCS Master Course File and established by the college at which the student is enrolled in the course.

Course Type	High School Transcript*		SAT		PSAT		ACT		VPT
<b>Transfer** Courses</b> (except Math and CHM 111)	Current cumulative high school GPA of 3.0 or higher	or	ERW score of 480 or higher	or	ERW score of 390 or higher	or	18 or higher on both English and Writing subject area tests	or	Placement into ENG 111
<b>Career and Technical*** Courses</b> (except Math)	Current cumulative high school GPA of 2.0 or higher.	or	ERW score of 480 or higher	or	ERW score of 390 or higher	or	18 or higher on both English and Writing subject area tests	or	Placement into ENF 1 or higher
* Cumulative GPA may be weighted or unweighted and may be self-reported.									
** A transfer course is any course that a college offers and will transcript in fulfillment of the requirements for a Degree or Certificate that is designed to transfer (e.g., AA, AS, AA&S, AFA, Uniform Certificate of General Studies).									
*** A career and technical course is any course that the college offers and will transcript in fulfillment of the requirements for degrees and certificates that are not designed for transfer (e.g., AAS, Certificate, Career Studies Certificates).									

Course	High School Transcript*		SAT		PSAT		ACT		VPT
MTH 101-133	Current cumulative high school GPA of 3.0 or higher and a 2.0 (C) grade or higher in a high school math course.	or	ERW score of 480 or higher and Math score of 530 or higher.	or	ERW score of 390 or higher and math score of 500 or higher.	or	22 or higher on Math subject area test.	or	Placement in MTH 111 or higher (Satisfaction of MTE 1-3).
MTH 154, 155	Current cumulative high school GPA of 3.0 or higher and a 2.0 (C) grade or higher in a high school math course.	or	ERW score of 480 or higher and Math score of 530 or higher.	or	ERW score of 390 or higher and math score of 500 or higher.	or	22 or higher on Math subject area test.	or	Placement in MTH 154 or higher (Satisfaction of MTE 1-5).
MTH 161, 167	Current cumulative high school GPA of 3.0 or higher and a 2.0 (C) grade or higher in Algebra 2 or in a higher level math course.	or	ERW score of 480 or higher and Math score of 530 or higher.	or	NIA	or	22 or higher on Math subject area test.	or	Placement into MTH 161 or higher (Satisfaction of MTE 1-9).
MTH 261, 263	Successful completion of required prerequisite courses: MTH 161 for MTH 261; MTH 167 (or MTH 161/162) for MTH 263.	or	N/A	or	N/A	or	N/A	or	Placement into MTH 261 or 263 on VPT.
CHM 111	Current cumulative high school GPA of 3.0 or higher and a 2.0 (C) grade or higher in Algebra 2 or in a higher level math course.	or	ERW score of 480 or higher and Math score of 530 or higher.	or	N/A	or	22 or higher on Math subject area test.	or	Placement into MTH 161 or higher (Satisfaction of MTE 1-9).

## 9<sup>th</sup> and 10<sup>th</sup> Grade Student Enrollment

Dual enrollment is restricted to rising high school juniors and seniors. Admitting high school students below the junior or senior level is considered exceptional. The college-ready status of each prospective student below the junior or senior high school level shall be assessed on a case-by-case basis. Such students must meet the above eligibility criteria and any other criteria as may be established by the college for participation of students below the junior or senior level in dual enrollment. Colleges shall have criteria and procedures for the case-by-case assessment of such students. Formal approval by the college president, or designee, is required for applicants who are below the junior or senior high school level to participate in dual enrollment.

## Current Dual Enrollment Course Offerings

While some of our Dual Enrollment (DE) courses may be accepted for transfer, no unified policy exists on the transfer of these courses. All transfer credits are at the discretion of the receiving college or university. Students are strongly urged to acquaint themselves with the requirements of the college or university to which transfer is being considered and to consult with an advisor at those transfer institutions in order to determine if their DE courses will be accepted for transfer prior to pursuing DE courses. Each college or university will make its own determination regarding the transfer status of DE courses.

**“Transferable” courses** are community college courses for which the credits may be accepted at a four-year college or university.

**“Non-transferable” courses** are community college courses for which credits most likely will not be accepted at a four-year college or university.

The **“•”** indicates the school at which a course is currently located. Many of these courses may be offered at other high schools based on sufficient student interest/demand and the availability of qualified staff. Students also may take courses at a school other than their home school by attend at least a part of their school day at that school (transportation provided).

Components of the **Transfer Virginia** initiative include course revisions, curriculum work, the Passport, and the [Uniform Certificate of General Studies](#) and impact course offerings and outcomes, as well as transfer opportunities for students. **The online Transfer Portal** is a critical component to the **Transfer Virginia** Initiative as it will help students navigate transfer by providing information about programs, course equivalencies, admissions, etc. across the state all in one place.

[Approved Passport Course Roster](#) and [Transfer Virginia DE Student Guide](#)

## Transferrable Courses

MCPS Course	MCPS Course Name	NRCC Course	AHS	BHS	CHS	EMHS
DE1600A	DE/AP ENGLISH 11 COLLEGE COMPOSITION	ENG 111 ENG 112	•	•	•	•
DE1600B	DE ENGLISH 12 COLLEGE COMPOSITION	ENG 111 ENG 112		•	•	
DE1601A	DE/AP ENGLISH 12 LITERATURE & COMPOSITION	ENG 245 ENG 225	•	•	•	•

DE2951A	DE/AP U.S. HISTORY	HIS 121 HIS 122	•	•	•	•
DE2950A	DE/AP U.S. GOVERNMENT	PLS 135 PLS 136			•	•
DE4700A	DE/AP BIOLOGY	BIO 101 BIO 102			•	•
DE4330	DE HUMAN ANATOMY / PHYSIOLOGY	BIO 141 BIO 142	•	•	•	•
DE43201	DE BIOTECHNOLOGY	BIO 253			•	
DE4410A	DE/AP CHEMISTRY	CHM 111 CHM 112		•		
DE4510	DE/AP PHYSICS	PHY 201 PHY 202	•		•	
DE3162A	DE/AP PRECALCULUS w/TRIGONOMETRY	MTH 167	•	•	•	•
DE31998	DE APPLIED CALCULUS I	MTH 261	•	•	•	•
DE31999	DE APPLIED CALCULUS II	MTH 262	•	•	•	•
DE31995	DE/AP CALCULUS I (AB)	MTH 263	•	•	•	•
DE31996	DE/AP CALCULUS II (BC)	MTH 264	•		•	•
DE9197V	DE ART/MUSIC APPRECIATION <b>VIRTUAL</b>	ART 100 MUS 121	•	•	•	•
DE9062	DE VIRGINIA TEACHERS FOR TOMORROW / TEACHER CADET <b>Note:</b> This course can be applied toward the elective requirements in NRCC's AA&S General Studies program. However, it does not transfer to all four-year institutions.	EDU 198	•	•	•	
DE9072	DE VIRGINIA TEACHERS FOR TOMORROW II / TEACHER CADET II	EDU 200	•	•	•	
DE2999	DE CONTEMPORARY WORLD RELIGIONS	REL 230		•		
DE2996V	DE PSYCHOLOGY/SOCIOLOGY <b>VIRTUAL</b>	PSY 200 SOC 200	•	•	•	•
DE2900A	DE/AP PSYCHOLOGY	PSY 200		•		
DE2212A	DE/AP HUMAN GEOGRAPHY	GEO 210 GEO 220	•	•	•	•
DE6612	DE COMPUTER INFORMATION SYSTEMS	ITE 152	•	•	•	
DE6640V	DE COMPUTER SCIENCE PROGRAMMING 1 <b>VIRTUAL</b>	CSC 221	•	•	•	•
DE6641V	DE COMPUTER SCIENCE PROGRAMMING 2 <b>VIRTUAL</b>	CSC 222	•	•	•	•
DE6642V	DE COMPUTER SCIENCE PROGRAMMING 3 <b>VIRTUAL</b>	CSC 223	•	•	•	•

## Non-Transferrable Courses

MCPS Course	MCPS Course Name	NRCC Course	AHS	BHS	CHS	EMHS
DE8531	DE ENGINEERING DESIGN GRAPHICS (Drafting II)	CAD 151		•		
DE8532	DE CIVIL ENGINEERING & ARCHITECTURAL DESIGN GRAPHICS (Drafting III)	CAD 111		•		
DE8436	DE ENGINEERING DRAWING & DESIGN	CAD 151			•	
DE8437	DE ARCHITECTURAL DRAWING & DESIGN	CAD 151		•		
DE8437	DE ARCHITECTURAL DRAWING & DESIGN	ARC 121			•	
DE8438	DE ADVANCED DRAWING & DESIGN	CAD 152	•	•	•	
DE8286	DE EARLY CHILDHOOD EDUCATION II <b>Note:</b> This course is eligible for transfer but is primarily considered a non-transferable course.	CHD 118 CHD 120		•	•	
DE8383	DE MEDICAL TERMINOLOGY	HIM 101 HIM 103	•	•	•	•
DE6630	DE DESIGN, MULTIMEDIA & WEB TECHNOLOGIES	ITD 110	•	•	•	
DE6302	DE CYBERSECURITY I	ITN 106		•	•	
DE6304	DE CYBERSECURITY II	ITN 101		•	•	
DE6306	DE CYBERSECURITY III	ITN 261		•	•	
DE8540	DE PRECISION MACHINING TECHNOLOGY II	MAC 106			•	
DE8331	DE NURSE AIDE	NUR 27		•	•	
Included in DE English 11 & 12	COLLEGE SUCCESS SKILLS	SDV 100	•	•	•	•
DE9826	DE RESEARCH I <b>Note:</b> This course can be applied toward the elective requirements in NRCC's AA&S General Studies program. However, it does not transfer to all four-year institutions.	SCT 198		•		
DE9827	DE RESEARCH II <b>Note:</b> This course can be applied toward the elective requirements in NRCC's AA&S General Studies program. However, it does not transfer to all four-year institutions.	SCT 298		•		
DE8735	DE INTRODUCTION TO DRONES	UMS 107	•	•	•	•
DE8736	DE DRONES II	UMS 177		•		
DE8019	DE WELDING I	WEL 100	•	•	•	
DE8095	DE WELDING II	WEL 123	•	•	•	

DE8096	DE WELDING III	WEL 160	•	•	•	
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## DE Special Circumstance Criteria & Forms for 9<sup>th</sup> or 10<sup>th</sup> Graders

[Table of Contents](#)

There are two (2) different forms – **Transferable** Courses and **NON-Transferable** Courses – on the following pages. The criteria for each type of course is different. **Students should consult the School Counselor to determine which form they need to use (also see [pages 196-199](#) for a complete listing of transferable and non-transferable courses offered by MCPS).** The criteria for a waiver is established by NRCC and is firm. If students do not meet the criteria, then NRCC will not grant the waiver. These students will not be allowed to dual enroll, and they will need to enroll in a different course.

- Students who meet the criteria for enrollment in transferrable courses are also eligible to enroll in non-transferrable courses, as the criteria for transferrable courses is more stringent.
- Any student who satisfies the required prerequisites can apply for the waiver and enroll in any desired DE course. MCPS will not impose any limits. Just as with Advanced Placement (AP) courses, teachers can make recommendations, but no school will not deny students access to a course for which they meet the requirements.

### Request for Special Circumstance Dual Enrollment

**Enrollment of high school freshmen and sophomores in dual enrollment courses is designated exceptional.** Each freshman or sophomore student will be considered on a case-by-case basis and will require formal approval by the college president or designee, as well as the appropriate academic division dean. Other conditions, as deemed by the college president, may also apply. All students who may be admitted under this consideration must meet the appropriate dual enrollment requirements as published at <https://www.nr.edu/dualenrollment/getstarted.php>

#### To be completed by student and high school counselor:

Student's Full Name	
Student's Date of Birth	
Student's High School	
Student's Cumulative GPA	

#### The student has met the following criteria to enroll as a ninth or tenth grade student:

For Transferable Courses		For Non-Transferable Courses	
GPA criterion is mandatory. <b>Student must meet 3 of 4 additional criteria.</b>	✓	GPA criterion is mandatory. <b>Student must meet 3 of 4 additional criteria.</b>	✓
3.5 GPA or higher <b>(Required)</b>		3.0 GPA or higher <b>(Required)</b>	
A in Algebra I or Geometry or Pass Advanced on Algebra I SOL Test		B or higher in Algebra I or Pass Advanced on Algebra I SOL Test	
A in most recent English course		B or higher in most recent English course	
A in most recent science course		B or higher in most recent science course	
A in most recent history course		B or higher in most recent history course	
A in Algebra II or Pass Advanced on Algebra II SOL test (Required for enrollment in MTH courses)			

#### This student has permission to enroll in the following dual enrollment course(s) through NRCC:

Semester and Year of Expected Dual Enrollment (for example: Fall 2023)		
Courses	High School Course	NRCC Course(s)

### **Signatures**

Student Signature		Date	
Counselor Signature*		Date	
Parent/Guardian Signature**		Date	

\* **Counselor Signature** indicates: (1) verification of grades and GPA; (2) verification that the student has met all pre/co-requisites for the high school course(s) requested; and (3) recommendation/approval of high school administration for the identified ninth or tenth grader to enroll in the course(s) listed.

\*\* **Parent/Guardian Signature** gives permission for the student to enroll in the NRCC courses listed above as a special circumstance and acknowledges course content will not be altered to be age appropriate for younger students. This course carries college rigor and expectations, and all appropriate college policies will apply. The student's final course grade(s) will become part of the student's permanent NRCC transcript.

### **Authorized by:**

Administrative Assistant for Dual Enrollment		Date	
Dean (as Dual Enrollment Coordinator)		Date	
VP for Instruction and Student Services (as President's designee)		Date	





**Montgomery County Public Schools  
Application/Request to Enroll in an External Course**

**Attached to this application are the sections of MCPS policy 7-2.4 relevant to "external courses".**

Please review carefully. Parents/Guardians and students are responsible for meeting all requirements.

Student's Name: \_\_\_\_\_ School: \_\_\_\_\_ Current Grade: \_\_\_\_\_

Parent/Guardian Name and Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

Official Title of Requested Course(s): \_\_\_\_\_

Number of Credits from Institution Providing Instruction for Requested Course(s): \_\_\_\_\_

Institution Providing Instruction: \_\_\_\_\_

Accredited by: \_\_\_\_\_

Address and Phone # of Institution: \_\_\_\_\_

School Year: \_\_\_\_\_ Start Date for Course(s): \_\_\_\_\_ End Date for Course(s): \_\_\_\_\_

Please state clearly the reason you want to take the external course(s) requested, **AND** indicate if you are requesting high school credit on your MCPS transcript for this/these course(s):

\_\_\_\_\_

**Official Course Description from the institution providing instruction MUST be attached.**

We understand and agree to abide by the regulations outlined in MCPS Policy 7-2.4. Failure to abide by all stipulations and designated deadlines will result in the negation of this agreement and failure to receive credit. Final decisions will be made by MCPS administration.

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent/Guardian Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**School-Level Approvals (Please sign to indicate approval):**

External Courses Previously Taken: \_\_\_\_\_

School Counselor: \_\_\_\_\_ Date: \_\_\_\_\_

School Administrator: \_\_\_\_\_ Date: \_\_\_\_\_

- ☐ Approved to take course(s) for \_\_\_\_ college credit(s) and \_\_\_\_ high school credit(s)
- ☐ Approved to take course(s) for \_\_\_\_ high school credit(s) only (as requested)
- ☐ Approved to take course; however, does not meet the criteria to be awarded high school credit
- ☐ Denied – Reason: \_\_\_\_\_

Director of Secondary Education: \_\_\_\_\_ Date: \_\_\_\_\_

**After approval, a copy of this application has been (please check all that apply):**

- ☐ Placed in student's cumulative file
- ☐ Provided to parent/guardian
- ☐ Forwarded to Division Testing Coordinator (if SOL is required)
- ☐ Entered into Power School

## **MCPS Policy 7-2.4**

### **Virtual Virginia**

Virtual Virginia is a program of the Virginia Department of Education serving students in Virginia public middle and high schools by providing flexible options for the diverse educational needs of students and their families. Virtual Virginia's supplemental program offers online courses for students who may not have access to Advanced Placement (AP®), standard core academic, world language, and elective courses within their schools because of a lack of highly qualified local instructors for those courses, because student enrollment would be too low to offer the courses locally, or due to scheduling conflicts within a school.

Students in high school (grades 9–12) who meet the course prerequisites and have approval from the principal may enroll in courses in Virtual Virginia's supplemental program through their school counselor. Course prerequisites are established by Virtual Virginia. All students must register for, and participate in, required assessments that correspond to their Virtual Virginia courses at their local school.

**Only students enrolled in the MCPS Virtual School Program will be permitted to enroll in Virtual Virginia's full-time program.**

**Students enrolled in a middle or high school in MCPS will be approved to take Virtual Virginia courses as "internal" courses only if one or more of the following criteria are met:**

1. The course(s) is/are not offered at the local school.
2. A scheduling conflict within the school prevents the student from accessing the desired class and cannot be resolved any other way.
3. The course(s) must be taken during a designated instructional period during the regular school day.

**All other Virtual Virginia courses will be considered as "external" courses and will be subject to all related policies (below).**

**These definitions of "internal" and "external" courses do not apply to Virtual Virginia courses taken as part of a student's participation in the MCPS Virtual School Program. All courses approved to be taken as part of the MCPS Virtual School Program will be treated as "internal" courses and will not be subject to any limitations described below.**

### **Course Credit for External Courses**

Students in grades 7 through 12 may take external courses (online or face-to-face) that originate from educational organizations other than Montgomery County Public Schools ("external") as appropriate for the student's grade level and in accordance with School Board policy. Courses may originate from educational organizations within or outside of the Commonwealth of Virginia. Students in grades 9-12 may earn high school credit for the successful completion of high school courses, dual enrollment courses, and/or college/university courses if the following criteria are met:

1. The educational organization from which the external course originates must be accredited by the appropriate state, regional, or national educational accrediting agency;
2. The student is responsible for all costs associated with taking an external course.
3. If the external course is a college/university course, **the student will earn one (1) high school credit for a minimum of six (6) college/university semester hours in a single subject. Exceptions** to the minimum number of college/university semester hours required for external courses to be counted as one (1) high school credit may be made for students who are taking required courses to complete the MCPS/New River Community College Associate of Arts & Sciences Degree Pathway, Associate of Applied Science Degree Pathway Information Technology - CyberSecurity Specialization, the MCPS to New River Community College Registered Nurse Program, or other division approved programs.

4. Prior to enrolling in an external course, the student must complete the MCPS Application/Request to Enroll in an External Course form and submit it, along with an official course description from the originating school and the student's reason for taking the course, to the school counselor;
5. Final decisions will be made by the Director of Secondary Education in consideration of the recommendation of the principal and school counselor;
6. The student and his/her parent/guardian must agree to abide by the requirements outlined in this policy. Failure to abide by all requirements and designated deadlines will result in the negation of the agreement and failure to receive high school credit. External courses taken without prior approval will not be recognized by MCPS.

The impact of earning credit for an EOC-related core curriculum course from an external program on the student's diploma must be communicated in writing to the student and the student's parent(s) during the approval process.

#### **Limitations on External Courses:**

1. All students are limited to taking **no more than one (1) external course for high school credit during a one-year period.**
2. A **maximum of four (4) high school credits may be earned toward a standard or advanced studies diploma** by taking external courses.
3. A student seeking a **standard diploma** may take a **maximum of two (2) external courses for high school credit in a core curriculum area.**
4. A student seeking an **advanced studies diploma** may take **no more than one (1) external course for high school credit in a core curriculum area.**

**Exceptions** to the limitations on external courses may be made for students who are taking required courses to complete the MCPS/New River Community College Associate of Arts & Sciences Degree Pathway, Associate of Applied Science Degree Pathway Information Technology - CyberSecurity Specialization, the MCPS to New River Community College Registered Nurse Program, or other division approved programs.

**Students are free to request permission to take additional external courses; however, no additional high school credit will be awarded beyond the limitations stated above.**

If the external course is a core curriculum course from another school division **within the Commonwealth of Virginia**, and is a course for which there normally would be a related SOL End-of-Course Test (EOC), **the student will take the EOC** as administered by the originating school division. The grade earned by the student as well as the SOL score and resulting verified credit will be accepted as a transfer credit from the other school division. If the student does not pass the EOC as administered by the other school division, he/she may retake the test through MCPS if needed and if he/she meets remediation requirements.

If the external course is a core curriculum course from a source **outside the Commonwealth of Virginia**, and is a course for which there normally would be a related SOL End-of-Course Test, the student will be notified during the approval process that he/she will not be able to earn a verified credit for the course. The grade earned by the student will be accepted as a transfer credit from an accredited out-of-state educational organization, but **the student will not take an SOL End-of-Course Test.**

Following completion of the external course, **the student is responsible for submitting a transcript showing the grade and credit(s) earned** in the course to the school counseling department. If a letter grade is given, the grade will transfer to the high school transcript and will be included in grade point average calculations. If the course is an Advanced Placement, dual enrollment, or approved college/university course, the student will receive weighted credit. If the course is graded on a pass/fail basis, the student will receive credit for the course with no impact on the student's GPA. **MCPS**

**will determine the number of high school credits, if any, that will be awarded for an external course in accordance with this policy.**

**If the external course is a pre-requisite for another high school course** that the student plans to take during the next school semester or summer term, the transcript must be received in the school counseling department prior to the first day of the next semester or summer term.

**Transcripts for graduating seniors must be received in the school counseling department at least five (5) days prior to graduation.** Failure to meet this requirement may result in the external course not being included on the high school transcript and a failure to graduate if the course is a graduation requirement.

Montgomery County Public Schools shall (i) implement an agreement for postsecondary degree attainment with a community college in the Commonwealth specifying the options for students to complete an associate's degree or a one-year Uniform Certificate of General Studies from a community college concurrent with a high school diploma and (ii) notify students and parents of the agreement. Such agreement shall specify the credit available for dual enrollment courses and Advanced Placement courses with qualifying exam scores of three or higher.

#### **Course Credit for Internal On-line Courses**

Students in grades 7 through 12 may take online courses that originate within Montgomery County Public Schools ("internal"). Students in grades 9-12 may earn course credit for the successful completion of internal online high school courses, including dual enrollment courses as appropriate for the student's grade level and in accordance with School Board policy.

#### **Limitations on Total Number of Course Credits Earned Annually in High School**

MCPS high school students shall be limited to a total of no more than nine (9) courses for high school credit – including internal and external courses – during a one-year period that includes the academic year and the summer immediately following that academic year. Credits earned for experiences outside of the school day, such as Student Research Project, Internship Workfocus, Service Learning, and other approved internships or clinical experiences, will not be considered as part of the nine (9) course limit per year.



Montgomery County Public Schools  
Application for Early Graduation

Student's Name: \_\_\_\_\_ School: \_\_\_\_\_ Current Grade: \_\_\_\_\_

Parent/Guardian Name and Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

When do you plan to graduate?

- ☐ At the completion of my junior year\*  
☐ At the end of 1<sup>st</sup> Semester  
☐ At the end of Summer School

*\*Please note that students intending to graduate in May of their junior year will not be cleared for graduation if SOL scores (including Writing) and/or CTE certification results have not been received by the high school.*

Which diploma do you intend to earn? ☐ Advanced ☐ Standard

**Attach a letter outlining why you would like to graduate early.**

Be sure to include your post-graduate plans. (e.g. early entrance college admission, employment, etc.)

**REQUIREMENTS TO BE MET FOR GRADUATION:** (to be completed by school counselor)

- Total Course Credits Completed (attach credit check sheet): \_\_\_\_\_
- Total Course Credits Still to be Earned: \_\_\_\_\_
- Courses Still Needed (list): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- SOL Tests Still Needed (list): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Has the CTE Certification requirement been met? ☐ YES ☐ NO
- Plan to Complete the Above Requirements (attach additional page if needed):  
\_\_\_\_\_  
\_\_\_\_\_

**I have read and understand the above requirements for Early Graduation.**

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent/Guardian Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**School-Level Approvals** (Please sign to indicate approval):

School Counselor: \_\_\_\_\_ Date: \_\_\_\_\_

School Administrator: \_\_\_\_\_ Date: \_\_\_\_\_

- ☐ Approved  
☐ Denied – Reason: \_\_\_\_\_

Director of Secondary Education: \_\_\_\_\_ Date: \_\_\_\_\_

- ☐ Letter sent to parent/guardian Date: \_\_\_\_\_  
☐ Copy of form & letter placed in student's cumulative file

# MCPS Governor's STEM Academy

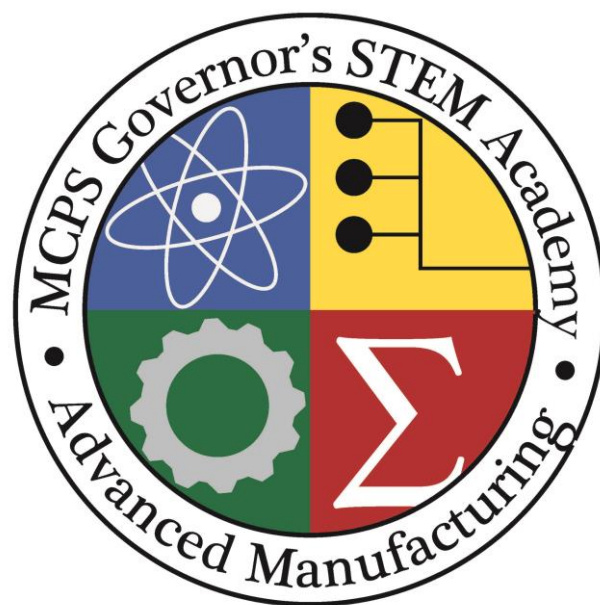
The Governor's STEM Academy is designed to promote student achievement and interest in STEM fields that are related to Advanced Manufacturing. Skill sets required for high demand STEM fields include Machining, Welding, Engineering, Robotics, and Information Technology.

## Criteria for Earning a STEM Academy Diploma Seal:

- Complete a sequence of designated CTE courses (minimum 2) and earn industry certification
- Complete a work-based internship (minimum 15 hours)
- Participate in a co-curricular project
- Earn college credits (minimum 9) through dual-enrolled or advanced placement courses
- Maintain a 3.0 GPA for STEM classes
- Graduate with Advanced Studies or Standard Diploma.

## Pathways in the STEM Academy:

- Architecture and Construction
- Information Technology
  - Cybersecurity
  - Information Support and Services
  - Web and Digital Communications
- Advanced Manufacturing
  - Precision Machining
  - Welding
  - Robotic Systems
- STEM Science and Mathematics
- STEM Engineering
  - Engineering Design
  - Robotics



## Benefits of Participation:

- Earn a diploma seal upon graduation.
- Become part of a school culture designed to develop workplace readiness skills
- Documented time in a STEM industry work environment
- Documented postsecondary credits and industry certification

## First Steps:

- Registering for any of the MCPS courses listed below will make you eligible for the Academy

## Next Step:

Instruction and support for completing your plan of study will be ongoing through your STEM Academy/ CTE courses

# STEM Academy Pathways

## Architecture & Construction

### Architecture and Construction: Construction

84310 Construction Technology

84330 Materials and Processes

### Architecture and Construction: Construction (CHS & BHS)

86010 Carpentry I

86020 Carpentry II

### Architecture and Construction: Construction (EMHS & BHS)

86040 Cabinetmaking I

86050 Cabinetmaking II

## Information Technology

### Information Technology: Cybersecurity

63020 Cybersecurity I, DE

6304 Cybersecurity II, DE

6306 Cybersecurity III, DE

### Information Technology: Information Support and Services

66120 Computer Information Systems

66130 Advanced Computer Information Systems, DE

### Information Technology: Web and Digital Communications

66300 Design, Multimedia, and Web Technologies

66310 Advanced Design, Multimedia, and Web Technologies, DE

## Advanced Manufacturing

### Manufacturing: Precision Machining

85390 Precision Machining, DE

85400 Precision Machining II, DE

### Manufacturing: Welding

80190 Welding I, DE

80191 Welding II, DE

### Manufacturing: Robotic Systems

84210 Technology of Robotics Design

84250 Manufacturing Systems



# Science, Technology, Engineering, and Math

## **STEM: Principles of Technology**

98110 Principles of Technology /Applied Physics I

98120 Principles of Technology / Applied Physics II

## **STEM: Engineering Design**

84390 Introduction to Engineering Design, DE

84410 Principles of Engineering, DE

84420 Computer Integrated Manufacturing, DE

84300 Architecture and Civil Engineering, DE

## **STEM Engineering: Robotics**

84210 Technology of Robotic Design (Robotics I)

84500 Engineering Explorations (Robotics II)

84910 Engineering Studies (Robotics III)

## **STEM: Technology and Design (BHS)**

85300 Intro to Engineering Design (Drafting I), DE

85310 Engineering Design Graphics (Drafting II), DE

85320 Civil Engineering & Architectural Design Graphics (Drafting III), DE

## **STEM: Technology and Design (CHS)**

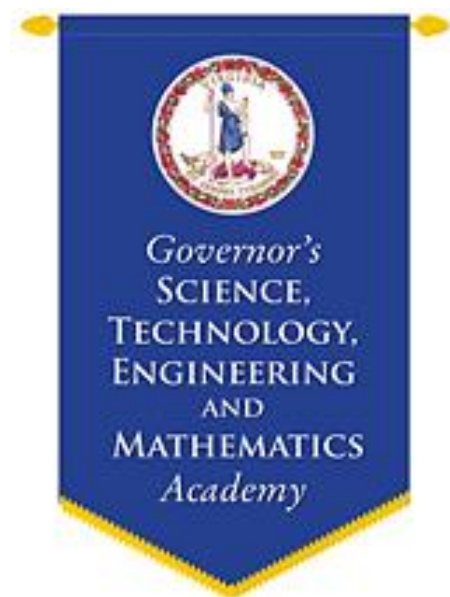
84360 Engineering Drawing and Design, DE

84370 Architectural Drawing and Design

84380 Advanced Drawing and Design, DE

## **NOTE:**

**Any student may take  
these career and  
technical courses  
without participating  
in the Academy.**





# MCPS Work Ready Diploma Seal

The MCPS Work Ready Diploma Seal is designed to promote students gaining work-based learning experiences. The Work Ready Diploma Seal tells employers that a student has the necessary skills needed to be successful in a professional setting. A student who earns the Work Ready Diploma Seal has gained experience in a professional work environment.

## Criteria for Earning a Work Ready Diploma Seal:

- Study the Workplace Readiness Competencies in a CTE class
- Pass the Workplace Readiness Skills Exam given by the Career and Technical Education Consortium of States (CTECS)
- Complete 90 hours of work-based learning experience
- Achieve a positive evaluation from workplace mentor



## Montgomery County Public Schools Fine Arts Diploma Seal



### Requirements:

**1. All candidates for the seal must meet BOTH of the following requirements:**

- A. Successfully complete at least 1 fine arts course each of the 4 years of high school (Visual Arts, Music, and/or Theatre)
- B. Have a 3.5 GPA or higher for all fine arts courses

### **AND**

**2. Students must select from AT LEAST 3 of the following options:**

- ☐ **Audition for** a District, State, Regional, or National music ensemble, or a VHSL theatre one-act competition at least 3 years
- ☐ **Participate in** at least 2 County, District, State, Regional, or National music ensembles, or theatre VHSL one-act competitions
- ☐ **Participate** in an approved non-school sponsored ensemble or production at least 2 years (i.e. Community Band, Roanoke Youth Orchestra, Blacksburg Children's Chorale, Summer Musical Enterprise, New River Stage, local community or college theatre production, etc.)
- ☐ **Audition for** a lead or supporting role, apply to direct, or apply for a major offstage position (ex. stage manager, lighting or sound director, or set designer) at least 3 years (not including theatre class performances)
- ☐ **Participate** at least 3 years and/or in 6 school sponsored musical or straight theatre productions either onstage or backstage (not including theatre class performances)
- ☐ **Participate in** at least 2 approved non-school sponsored straight or musical theatre performances
- ☐ **Direct** either a one-act or full-length play
- ☐ **Submit** a single work of art to the Regional Scholastic Art Competition at least 3 years
- ☐ **Receive** a Gold Key or a Silver Key from Regional Scholastic Art Competition for at least 1 year
- ☐ **Receive** an Honorable Mention from Regional Scholastic Art Competition for at least 2 years
- ☐ **Submit** a portfolio to Regional Scholastic Art Competition at least 1 year
- ☐ **Selection from** Regional Scholastic Art Competition for National Judication at least 1 year
- ☐ **Participation in** at least 6 school sponsored art shows
- ☐ **Participation in** at least 4 approved non-school sponsored art shows. (other than Scholastic Art Competition)
- ☐ **Submission to** the Virginia School Board Association Art Contest for at least 2 years
- ☐ **Submission to** the VA Congressional Art Competition for at least 2 years
- ☐ **Placement in** approved non-school sponsored art contests for at least 1 year (i.e. Doodle for Google)
- ☐ **Acceptance and participation in** the Summer Governor's School for the Arts for at least 1 year



## MCPS COURSES by CAREER CLUSTER

The career cluster charts found on the following pages provide students with an idea of the different types of jobs and careers that are available to them. Montgomery County courses are listed in the column entitled high school courses to consider. If you are interested in a particular career cluster, please consider these recommendations when signing up for classes.

### What are the 16 Career Clusters?

Career Clusters are groupings of occupations and industries that are used for organizing curriculum design and career counseling and guidance.

- **Agriculture, Food and Natural Resources**
- **Architecture and Construction**
- **Arts, Audio/Video Technology and Communications**
- **Business Management and Administration**
- **Education and Training**
- **Finance**
- **Government and Public Administration**
- **Health Science**
- **Hospitality and Tourism**
- **Human Services**
- **Information Technology**
- **Law, Public Safety, Corrections and Security**
- **Manufacturing**
- **Marketing**
- **Science, Technology, Engineering and Mathematics**
- **Transportation, Distribution and Logistics**

<b>Agriculture, Food and Natural Resources</b>		
Do you like working outside? Do you like to work on engines? Do you have a green thumb? Do you love working with animals? Is protecting the environment one of your passions?		
<b>High School Elective Courses to Consider Taking</b>	<ul style="list-style-type: none"> <li>• Agricultural Mechanics &amp; Basic Animal Science</li> <li>• Applied Physics/Principles of Technology I, II</li> <li>• Bioethics</li> <li>• Biology, AP, DE</li> <li>• Biotechnology</li> <li>• Botany/Zoology</li> <li>• Chemistry I, II, AP</li> <li>• Ecology</li> <li>• Entrepreneurship Education</li> <li>• Environmental Science, AP</li> <li>• Equine Management &amp; Production</li> <li>• Fisheries &amp; Wildlife Management</li> <li>• Floral Design I</li> <li>• Floriculture</li> <li>• Foundations of Agriculture, Food, &amp; Natural Resources</li> <li>• Genetics</li> <li>• Greenhouse Plant Production &amp; Management</li> <li>• Horticulture Science &amp; Practices</li> <li>• Introduction to Natural Resources</li> <li>• Introduction to Plant Systems</li> <li>• Landscaping I</li> <li>• Landscaping II</li> <li>• Meteorology</li> <li>• Oceanography</li> <li>• Power &amp; Transportation</li> <li>• Small Animal Care</li> <li>• Small Engine Repair I</li> <li>• Small Engines Repair, Advanced</li> <li>• Veterinary Science</li> <li>• Virginia Teachers for Tomorrow</li> <li>• Welding I, II</li> </ul>	
<b>Related Career Clusters</b>	<ul style="list-style-type: none"> <li>• Government and Public Administration</li> <li>• Law, Public Safety, Corrections and Security</li> <li>• Science, Technology, Engineering and Mathematics</li> </ul>	
<b>Diploma with Some Training</b>	<b>Certification or Associate Degree</b>	<b>College Degree</b>
<ul style="list-style-type: none"> <li>• Aquaculture workers</li> <li>• Hazardous Materials Removal workers</li> <li>• Refuse &amp; Recycling collectors</li> </ul>	<ul style="list-style-type: none"> <li>• Water Treatment Operator</li> <li>• Wastewater Management System Operator</li> <li>• Game Warden</li> </ul>	<ul style="list-style-type: none"> <li>• Forester</li> <li>• Biological Technician</li> <li>• Park Ranger</li> </ul>
<b>Local Employment Projections</b>	36 Annual job openings 11% Growth for New River Region through 2024	



## 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 on or operating cars, trucks, or airplanes?  
 Do you understand how things work?  
 Do you like moving or handling material, products, or people?  
 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?  
 Do you like working with math and science?

### High School Elective Courses to Consider Taking

- Advanced Drawing & Design
- Applied Physics/Principles of Technology I, II
- Architectural Drawing & Design
- Building Trades I, II
- Cabinetmaking I, II
- Carpentry I, II, III
- Civil Engineering & Architecture
- Construction Technology
- Drafting I, II, III
- Electricity I, II, III
- Engineering Design Graphics
- Engineering Drawing & Design
- Entrepreneurship Education
- Environmental Science, AP
- HVACR I, II
- Introduction to Engineering Design
- Materials & Processes Technology
- Physics
- Physics, AP
- Principles of Engineering
- Robotics I, II, III
- Technical Drawing & Design
- Welding I, II

### Related Career Clusters

- Science, Technology, Engineering and Mathematics
- Manufacturing

### Diploma with Some Training

- Construction Trade Supervisor
- Carpenter
- Mason/Concrete Finisher
- Excavating and Loading Machine Operator
- Plumber/Pipefitter
- Metal Fabricator
- Landscaping/Groundskeeper
- Highway Maintenance

### Certification or Associate Degree

- Electrician
- HVAC Mechanic
- Surveyor

### College Degree

- Construction Manager
- Cost Estimator
- Civil Engineer
- Architect

### Local Employment Projections

154 Annual job openings  
 7% Growth for New River Region through 2024



## Arts, Audio/Visual Technology & Communications

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?

### High School Elective Courses to Consider Taking

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>Advanced Acting</li> <li>Advertising Design I, II</li> <li>Architectural Drawing &amp; Design</li> <li>Art I, II, III, IV, AP</li> <li>Art/Music Appreciation, DE</li> <li>Band</li> <li>Ceramics I, II</li> <li>Chorus/Vocal Ensembles</li> <li>Cinema &amp; Photographic Production I, II</li> <li>Computer Information Systems</li> <li>Computer Information Systems, Advanced</li> <li>Creative Writing I, II</li> <li>Design, Multimedia, &amp; Web Technologies</li> <li>Design, Multimedia, &amp; Web Technologies, Advanced</li> <li>Digital Marketing</li> <li>Electricity I, II, III</li> <li>Entrepreneurship Education</li> <li>Fashion Marketing</li> <li>Fashion Marketing, Advanced</li> <li>Film Study</li> <li>Free Shakespeare</li> <li>Graphics Imaging Technology I, II</li> <li>Guitar</li> </ul> | <ul style="list-style-type: none"> <li>Interior Design I</li> <li>Introduction to Fashion Careers</li> <li>Introduction to Interactive Programming</li> <li>Introduction to Interior Design</li> <li>Journalism I, II, III</li> <li>Marketing</li> <li>Marketing Management</li> <li>Marketing, Advanced</li> <li>Media Arts I, II, III, IV</li> <li>Music History/Literature</li> <li>Music Theory</li> <li>Musical Theatre</li> <li>Office Administration</li> <li>Percussion Techniques</li> <li>Piano Lab I, II</li> <li>Principles of Business &amp; Marketing</li> <li>Programming, Advanced</li> <li>Robotics I, II, III</li> <li>Speech Fundamentals</li> <li>Sports &amp; Entertainment Marketing</li> <li>Technical Theatre</li> <li>Theatre I, II</li> <li>Word Processing</li> </ul> |
|---|--|

### Related Career Clusters

Information Technology

#### Diploma with Some Training

- Artist
- Musician
- Performer

#### Certification or Associate Degree

- Telecommunications Equipment Installer/Repairer
- Photographer/Videographer
- TV/Broadcast Technician
- Desktop Publisher

#### College Degree

- Editor
- Graphic Designer
- Newscaster

### Local Employment Projections

11 Annual job openings  
5% Growth for New River Region through 2024



## Business Management and Administration

Are you interested in organizational behavior?  
 Are you interested in how businesses operate?  
 Have you ever thought of starting your own business?  
 Do you like working in an office and using computers?  
 Do you enjoy working with the public?  
 Do you communicate effectively?

<b>High School Elective Courses to Consider Taking</b>	<ul style="list-style-type: none"> <li>• Accounting</li> <li>• Accounting, Advanced</li> <li>• Advertising Design I, II</li> <li>• Business Law</li> <li>• Business Management</li> <li>• Computer Information Systems</li> <li>• Computer Information Systems, Advanced</li> <li>• Creative Writing I, II</li> <li>• Design, Multimedia, &amp; Web Technologies</li> <li>• Design, Multimedia, &amp; Web Technologies, Advanced</li> <li>• Digital Marketing</li> <li>• Entrepreneurship Education</li> <li>• Graphics Imaging Technology I, II</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to Interactive Programming</li> <li>• Keyboarding Applications</li> <li>• Marketing</li> <li>• Marketing Management</li> <li>• Marketing, Advanced</li> <li>• Office Administration</li> <li>• Opportunities in Global Trade</li> <li>• Opportunities in Global Trade, Advanced</li> <li>• Principles of Business &amp; Marketing</li> <li>• Programming, Advanced</li> <li>• Speech Fundamentals</li> <li>• Sports &amp; Entertainment Marketing</li> <li>• Virginia Teachers for Tomorrow</li> <li>• Word Processing</li> </ul>
<b>Related Career Clusters</b>	<ul style="list-style-type: none"> <li>• Finance</li> <li>• Government and Public Administration</li> </ul>	
<b>Diploma with Some Training</b>	<b>Certification or Associate Degree</b>	<b>College Degree</b>
<ul style="list-style-type: none"> <li>• Office Clerks</li> <li>• Stock Clerks</li> <li>• Shipping Clerk</li> </ul>	<ul style="list-style-type: none"> <li>• Office Supervisors</li> <li>• Payroll Clerk</li> <li>• Bookkeeper</li> <li>• Postal Clerk</li> <li>• Executive Secretary/Assistant</li> <li>• Customer Service Rep</li> </ul>	<ul style="list-style-type: none"> <li>• Operations Manager</li> <li>• Management Analyst</li> <li>• Human Resource Manager</li> </ul>
<b>Local Employment Projections</b>	519 Annual job openings 5% Growth for New River Region through 2024	





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 and/or children?		
<b>High School Elective Courses to Consider Taking</b>	<ul style="list-style-type: none"> <li>• Advertising Design I, II</li> <li>• Business Law</li> <li>• Business Management</li> <li>• Computer Information Systems</li> <li>• Computer Information Systems, Advanced</li> <li>• Creative Writing I, II</li> <li>• Design, Multimedia, &amp; Web Technologies</li> <li>• Design, Multimedia, &amp; Web Technologies, Advanced</li> <li>• Digital Marketing</li> <li>• Early Childhood Education I, II</li> <li>• Entrepreneurship Education</li> <li>• Equine Management</li> <li>• Graphics Imaging Technology I, II</li> <li>• Introduction to Early Childhood Education</li> <li>• Introduction to Interactive Programming</li> <li>• Keyboarding Applications</li> <li>• Marketing</li> <li>• Marketing Management</li> <li>• Marketing, Advanced</li> <li>• Office Administration</li> <li>• Principles of Business &amp; Marketing</li> <li>• Programming, Advanced</li> <li>• Small Engine Repair I</li> <li>• Small Engines Repair, Advanced</li> <li>• Speech Fundamentals</li> <li>• Virginia Teachers for Tomorrow</li> <li>• Word Processing</li> </ul>	
<b>Related Career Clusters</b>	<ul style="list-style-type: none"> <li>• Hospitality and Tourism</li> <li>• Human Services</li> </ul>	
<b>Diploma with Some Training</b>	<b>Certification or Associate Degree</b>	<b>College Degree</b>
<ul style="list-style-type: none"> <li>• Childcare Worker</li> <li>• Recreation Worker</li> <li>• Fitness Trainer</li> <li>• Aerobics Instructor</li> </ul>	<ul style="list-style-type: none"> <li>• Teaching Assistants</li> <li>• Library Assistant</li> </ul>	<ul style="list-style-type: none"> <li>• Secondary School Teacher</li> <li>• Elementary School Teacher</li> <li>• Preschool Teacher</li> <li>• Guidance Counselor</li> <li>• Librarian</li> <li>• Education Administrator</li> <li>• Special Education Teacher</li> </ul>
<b>Local Employment Projections</b>	271 Annual job openings 11% Growth for New River Region through 2024	





Finance		
<p>Do you want to use your money wisely?</p> <p>Would you like to help others make better financial decisions?</p> <p>Do you like working with money and numbers?</p> <p>Do you have excellent attention to detail?</p> <p>Do you enjoy tracking financial information?</p>		
<b>High School Elective Courses to Consider Taking</b>	<ul style="list-style-type: none"> <li>• Accounting</li> <li>• Accounting, Advanced</li> <li>• Business Law</li> <li>• Business Management</li> <li>• Computer Information Systems</li> <li>• Computer Information Systems, Advanced</li> <li>• Entrepreneurship Education</li> <li>• Introduction to Interactive Programming</li> <li>• Keyboarding Applications</li> <li>• Office Administration</li> <li>• Opportunities in Global Trade</li> <li>• Opportunities in Global Trade, Advanced</li> <li>• Principles of Business &amp; Marketing</li> <li>• Programming, Advanced</li> </ul>	
<b>Related Career Clusters</b>	<ul style="list-style-type: none"> <li>• Business Management and Administration</li> <li>• Government and Public Administration</li> </ul>	
<b>Diploma with Some Training</b>	<b>Certification or Associate Degree</b>	<b>College Degree</b>
<ul style="list-style-type: none"> <li>• Insurance Agent</li> <li>• Secretary</li> </ul>	<ul style="list-style-type: none"> <li>• Bank Teller</li> <li>• Loan Clerk</li> <li>• Insurance Claims Associate</li> </ul>	<ul style="list-style-type: none"> <li>• Loan Officer</li> <li>• Accountant/Auditor</li> <li>• Financial Manager</li> <li>• Personal Financial Advisor</li> </ul>
<b>Local Employment Projections</b>	<p>98 Annual job openings</p> <p>8% Growth for New River Region through 2024</p>	



<b>Government and Public Administration</b>		
Are you interested in politics? Do you like to help the public? Do you want to get involved in local issues?		
<b>High School Elective Courses to Consider Taking</b>	<ul style="list-style-type: none"> <li>• Accounting</li> <li>• Accounting, Advanced</li> <li>• Bioethics</li> <li>• Business Law</li> <li>• Business Management</li> <li>• Civil Engineering &amp; Architecture</li> <li>• Computer Information Systems</li> <li>• Computer Information Systems, Advanced</li> <li>• Cybersecurity Fundamentals</li> <li>• Design, Multimedia, &amp; Web Technologies</li> <li>• Design, Multimedia, &amp; Web Technologies, Advanced Ecology</li> <li>• Entrepreneurship Education</li> <li>• Introduction to Interactive Programming</li> <li>• Keyboarding Applications</li> <li>• Office Administration</li> <li>• Opportunities in Global Trade</li> <li>• Opportunities in Global Trade, Advanced</li> <li>• Principles of Business &amp; Marketing</li> <li>• Programming, Advanced</li> </ul>	
<b>Related Career Clusters</b>	<ul style="list-style-type: none"> <li>• Business Management and Administration</li> <li>• Finance</li> </ul>	
<b>Diploma with Some Training</b>	<b>Certification or Associate Degree</b>	<b>College Degree</b>
<ul style="list-style-type: none"> <li>• Eligibility Interviewer</li> <li>• Office Clerk</li> </ul>	<ul style="list-style-type: none"> <li>• Court Clerk</li> <li>• Municipal Clerk</li> </ul>	<ul style="list-style-type: none"> <li>• Legislators</li> <li>• Compliance Officers</li> </ul>
<b>Local Employment Projections</b>	17 Annual job openings 12% Growth for New River Region through 2024	



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?		
<b>High School Elective Courses to Consider Taking</b>	<ul style="list-style-type: none"> <li>• Advanced PE</li> <li>• Anatomy/Physiology</li> <li>• Bioethics</li> <li>• Biology, AP, DE</li> <li>• Biotechnology</li> <li>• Chemistry I, II, AP</li> <li>• Emergency Medical Technician I</li> <li>• Entrepreneurship Education</li> <li>• Equine Management &amp; Production</li> <li>• Family Relations</li> <li>• Fisheries &amp; Wildlife Management</li> <li>• Genetics</li> <li>• Health Assisting Careers</li> <li>• Human Anatomy/Physiology, DE</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to Health &amp; Medical Sciences</li> <li>• Introduction to Natural Resources</li> <li>• Medical Terminology</li> <li>• Mental Health Assisting Careers</li> <li>• Nutrition &amp; Wellness</li> <li>• Psychology</li> <li>• Psychology, AP</li> <li>• Psychology/Sociology</li> <li>• Psychology/Sociology, DE</li> <li>• Small Animal Care</li> <li>• Veterinary Science</li> <li>• Virginia Teachers for Tomorrow</li> </ul>
<b>Related Career Clusters</b>	<ul style="list-style-type: none"> <li>• Human Services</li> <li>• Science, Technology, Engineering and Mathematics</li> </ul>	
<b>Diploma with Some Training</b>	<b>Certification or Associate Degree</b>	<b>College Degree</b>
<ul style="list-style-type: none"> <li>• Dental Assistant</li> <li>• Home Health Aide</li> <li>• Nurse Aide</li> <li>• Medical Secretary</li> </ul>	<ul style="list-style-type: none"> <li>• Licensed Practical Nursing (LPN)</li> <li>• Dental Hygienist</li> <li>• Certified Nursing Assistant (CNA)</li> <li>• EMT</li> <li>• Surgical Technician</li> <li>• Biotechnology Technician</li> <li>• Fitness Trainer</li> <li>• Physical Therapy Assistant</li> <li>• Psychiatric Technician</li> <li>• Medical Assistant</li> </ul>	<ul style="list-style-type: none"> <li>• Physical/Occupational Therapist</li> <li>• Dentist</li> <li>• Physician</li> <li>• Nurse Practitioner</li> <li>• Registered Nurse</li> <li>• Radiation Therapist</li> <li>• Athletic Trainer</li> <li>• Veterinarian</li> </ul>
<b>Local Employment Projections</b>	329 Annual job openings 15% Growth for New River Region through 2024	



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?		
<b>High School Elective Courses to Consider Taking</b>	<ul style="list-style-type: none"> <li>• Accounting</li> <li>• Accounting, Advanced</li> <li>• Advertising Design I, II</li> <li>• Business Law</li> <li>• Business Management</li> <li>• Computer Information Systems</li> <li>• Computer Information Systems, Advanced</li> <li>• Creative Writing I, II</li> <li>• Culinary Arts I, II</li> <li>• Culinary Arts Specialization</li> <li>• Design, Multimedia, &amp; Web Technologies</li> <li>• Design, Multimedia, &amp; Web Technologies, Advanced</li> <li>• Digital Marketing</li> <li>• Entrepreneurship Education</li> <li>• Graphics Imaging Technology I, II</li> <li>• Introduction to Culinary Arts</li> <li>• Introduction to Hospitality, Tourism, &amp; Recreation</li> <li>• Introduction to Interactive Programming</li> <li>• Introduction to Marketing</li> <li>• Keyboarding Applications</li> <li>• Marketing</li> <li>• Marketing Management</li> <li>• Marketing, Advanced</li> <li>• Office Administration</li> <li>• Opportunities in Global Trade</li> <li>• Opportunities in Global Trade, Advanced</li> <li>• Principles of Business &amp; Marketing</li> <li>• Programming, Advanced</li> <li>• Speech Fundamentals</li> <li>• Sports &amp; Entertainment Marketing</li> <li>• Sports &amp; Entertainment Management</li> <li>• Virginia Teachers for Tomorrow</li> <li>• Word Processing</li> </ul>	
<b>Related Career Clusters</b>	Human Services	
<b>Diploma with Some Training</b>	<b>Certification or Associate Degree</b>	<b>College Degree</b>
<ul style="list-style-type: none"> <li>• Restaurant Cook</li> <li>• Food Prep and Serving</li> <li>• Wait Staff</li> <li>• Housekeeping Supervisor</li> <li>• Maid/Janitor</li> </ul>	<ul style="list-style-type: none"> <li>• Bartender</li> <li>• Hotel Clerk</li> <li>• Event Planner</li> </ul>	<ul style="list-style-type: none"> <li>• Facility Manager</li> </ul>
<b>Local Employment Projections</b>	652 Annual job openings 6% Growth for New River Region through 2024	



<b>Human Services</b>		
Do you like to help people solve problems? 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?		
<b>High School Elective Courses to Consider Taking</b>	<ul style="list-style-type: none"> <li>• Advanced PE</li> <li>• Anatomy/Physiology</li> <li>• Human Anatomy/Physiology, DE</li> <li>• Barbering I, II, III</li> <li>• Beauty Salon Assistant</li> <li>• Bioethics</li> <li>• Biology, AP, DE</li> <li>• Biotechnology</li> <li>• Cosmetology I, II, III</li> <li>• Culinary Arts I, II</li> <li>• Culinary Arts Specialization</li> <li>• Early Childhood Education I, II</li> <li>• Emergency Medical Technician I</li> <li>• Entrepreneurship Education</li> <li>• Family Relations</li> <li>• Genetics</li> <li>• Health Assisting Careers</li> <li>• Independent Living</li> <li>• Introduction to Early Childhood Education</li> <li>• Introduction to Health &amp; Medical Sciences</li> <li>• Medical Terminology</li> <li>• Mental Health Assisting Careers</li> <li>• Nutrition &amp; Wellness</li> <li>• Psychology</li> <li>• Psychology, AP</li> <li>• Psychology/Sociology</li> <li>• Virginia Teachers for Tomorrow</li> </ul>	
<b>Related Career Clusters</b>	Education and Training	
<b>Diploma with Some Training</b>	<b>Certification or Associate Degree</b>	<b>College Degree</b>
<ul style="list-style-type: none"> <li>• Personal Care Aide</li> <li>• Childcare Worker</li> </ul>	<ul style="list-style-type: none"> <li>• Hairdresser</li> <li>• Fitness Trainer</li> <li>• Massage Therapist</li> </ul>	<ul style="list-style-type: none"> <li>• Social Worker</li> <li>• Mental Health Counselor</li> </ul>
<b>Local Employment Projections</b>	178 Annual job openings 16% Growth for New River Region through 2024	



## Information Technology

Do you like a work environment that is unpredictable and often changing?

Do you like to solve problems and think on your feet?

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?

### High School Elective Courses to Consider Taking

- Business Law
- Business Management
- Cinema & Photographic Production I, II
- Computer Information Systems
- Computer Information Systems, Advanced
- Computer Network Software Operations
- Computer Network Software Operations, Advanced
- Computer Science
- Computer Science A, AP
- Computer Science Principles, AP
- Computer Systems Technology I, II
- Cybersecurity Fundamentals
- Cybersecurity Systems Technology
- Design, Multimedia, & Web Technologies
- Design, Multimedia, & Web Technologies, Advanced
- Digital Marketing
- Entrepreneurship Education
- Graphics Imaging Technology I, II
- Information Technology (IT) Fundamentals
- Introduction to Interactive Programming
- Keyboarding Applications
- Medical Terminology
- Office Administration
- Programming, Advanced
- Robotics I, II, III
- Virginia Teachers for Tomorrow
- Word Processing

### Related Career Clusters

- Science, Technology, Engineering and Mathematics
- Transportation, Distribution and Logistics
- Arts, Audio/Video Technology and Communications

### Diploma with Some Training

- IT Assistant
- Call Center Support Rep
- Telecommunications Technician
- Penetration Tester

### Certification or Associate Degree

- Web Developer
- IT Support Specialist
- Field Service IT Technician
- Digital Marketer
- Forensic Computer Analyst

### College Degree

- Software Developer
- Computer Support Specialist
- Computer System Analyst
- IT Security Analyst
- Security Systems Administrator

### Local Employment Projections

43 Annual job openings  
13% Growth for New River Region through 2024



<b>Law, Public Safety, Corrections and Security</b>		
Are you good at working with people in stressful situations? Are you good at controlling your own emotions so that you can help others? Are you a good role model?		
<b>High School Elective Courses to Consider Taking</b>	<ul style="list-style-type: none"> <li>• Bioethics</li> <li>• Biotechnology</li> <li>• Business Law</li> <li>• Business Management</li> <li>• Computer Information Systems</li> <li>• Computer Network Software Operations</li> <li>• Computer Systems Technology I, II</li> <li>• Cybersecurity Fundamentals</li> <li>• Cybersecurity Systems Technology</li> <li>• Entrepreneurship Education</li> <li>• Information Technology (IT) Fundamentals</li> <li>• Keyboarding Applications</li> <li>• Office Administration</li> <li>• Psychology</li> <li>• Psychology, AP</li> <li>• Psychology/Sociology</li> <li>• Psychology/Sociology, DE</li> <li>• Word Processing</li> </ul>	
<b>Related Career Clusters</b>	<ul style="list-style-type: none"> <li>• Human Services</li> <li>• Government and Public Administration</li> </ul>	
<b>Diploma with Some Training</b>	<b>Certification or Associate Degree</b>	<b>College Degree</b>
<ul style="list-style-type: none"> <li>• Lifeguard</li> </ul>	<ul style="list-style-type: none"> <li>• Correctional Officer/Jailer</li> <li>• Police/Sheriff Officer</li> <li>• Police Supervisor</li> <li>• Security Guard</li> <li>• Legal Assistant</li> </ul>	<ul style="list-style-type: none"> <li>• Lawyer</li> <li>• Probation Officer</li> <li>• Detective/Criminal Investigator</li> </ul>
<b>Local Employment Projections</b>	12% Growth for New River Region through 2024 136 Annual job openings	



Manufacturing		
<p>Do you understand how things work?</p> <p>Do you like moving or handling material, products, or people?</p> <p>Do you like working with tools, machinery, and computers?</p> <p>Do you enjoy seeing the concrete result of your work?</p>		
<b>High School Elective Courses to Consider Taking</b>	<ul style="list-style-type: none"> <li>• Applied Physics/Principles of Technology I, II</li> <li>• Architectural Drawing &amp; Design</li> <li>• Bioethics</li> <li>• Biotechnology</li> <li>• Building Trades I, II</li> <li>• Business Law</li> <li>• Business Management</li> <li>• Cabinetmaking I, II</li> <li>• Carpentry I, II, III</li> <li>• Chemistry</li> <li>• Civil Engineering &amp; Architecture</li> <li>• Computer Information Systems</li> <li>• Computer Information Systems, Advanced</li> <li>• Computer Integrated Manufacturing</li> <li>• Computer Network Software Operations</li> <li>• Computer Systems Technology I, II</li> <li>• Construction Technology</li> <li>• Cybersecurity Fundamentals</li> <li>• Cybersecurity Systems Technology</li> <li>• Design, Multimedia, &amp; Web Technologies</li> <li>• Design, Multimedia, &amp; Web Technologies, Advanced</li> <li>• Drafting I, II, III Drawing &amp; Design, Advanced</li> <li>• Electricity I, II, III</li> <li>• Engineering Design Graphics</li> <li>• Engineering Drawing &amp; Design</li> <li>• Entrepreneurship Education</li> <li>• Environmental Science, AP</li> <li>• HVACR I, II</li> <li>• Information Technology (IT) Fundamentals</li> <li>• Introduction to Engineering Design</li> <li>• Keyboarding Applications</li> <li>• Manufacturing Systems I, II</li> <li>• Materials &amp; Processes Technology</li> <li>• Office Administration</li> <li>• Physics</li> <li>• Precision Machining Technology I, II</li> <li>• Principles of Engineering</li> <li>• Robotics I, II, III</li> <li>• Technical Drawing &amp; Design</li> <li>• Welding I, II</li> <li>• Word Processing</li> </ul>	
<b>Related Career Clusters</b>	Science, Technology, Engineering and Mathematics	
<b>Diploma with Some Training</b>	<b>Certification or Associate Degree</b>	<b>College Degree</b>
<ul style="list-style-type: none"> <li>• Industrial Machinery Mechanics</li> <li>• Maintenance/Repair Workers</li> <li>• Assemblers/Fabricators</li> <li>• Machinists</li> <li>• Welders</li> <li>• Inspectors/Testers/Weighers</li> </ul>	<ul style="list-style-type: none"> <li>• Engineering Technician</li> <li>• Line Supervisor</li> <li>• Computer Repair Technician</li> </ul>	<ul style="list-style-type: none"> <li>• Purchasing Agent</li> <li>• Industrial Engineer</li> <li>• Operations Manager</li> </ul>
<b>Local Employment Projections</b>	490 Annual job openings -1% Growth for New River Region through 2024	





Marketing		
<p>Do you enjoy providing a service to others?</p> <p>Can you write a good advertisement?</p> <p>Do you like helping people find solutions to their problems?</p> <p>Are you good at persuading people to make purchases and convincing people to do things?</p> <p>Are you a creative person?</p>		
<b>High School Elective Courses to Consider Taking</b>	<ul style="list-style-type: none"> <li>• Advertising Design I, II</li> <li>• Art I, II, III, IV, AP</li> <li>• Business Law</li> <li>• Business Management</li> <li>• Cinema &amp; Photographic Production I, II</li> <li>• Computer Information Systems</li> <li>• Computer Information Systems, Advanced</li> <li>• Computer Network Software Operations</li> <li>• Computer Network Software Operations, Advanced</li> <li>• Creative Writing I, II</li> <li>• Design, Multimedia, &amp; Web Technologies</li> <li>• Design, Multimedia, &amp; Web Technologies, Advanced</li> <li>• Digital Marketing</li> <li>• Entrepreneurship Education</li> <li>• Fashion Marketing</li> </ul>	<ul style="list-style-type: none"> <li>• Fashion Marketing, Advanced</li> <li>• Graphics Imaging Technology I, II</li> <li>• Introduction to Fashion Careers</li> <li>• Introduction to Interactive Programming</li> <li>• Journalism I, II, III</li> <li>• Keyboarding Applications</li> <li>• Marketing</li> <li>• Marketing Management</li> <li>• Marketing, Advanced</li> <li>• Media Arts I, II, III, IV</li> <li>• Office Administration</li> <li>• Opportunities in Global Trade</li> <li>• Opportunities in Global Trade, Advanced</li> <li>• Principles of Business &amp; Marketing</li> <li>• Programming, Advanced</li> <li>• Speech Fundamentals</li> <li>• Sports &amp; Entertainment Marketing</li> <li>• Word Processing</li> </ul>
<b>Related Career Clusters</b>		
<b>Diploma with Some Training</b>	<b>Certification or Associate Degree</b>	<b>College Degree</b>
<ul style="list-style-type: none"> <li>• Cashiers</li> <li>• Counter Clerks</li> </ul>	<ul style="list-style-type: none"> <li>• Retail Salesperson</li> <li>• Retail Supervisors</li> </ul>	<ul style="list-style-type: none"> <li>• Sales Representatives, Wholesale/Manufacturing/Technical</li> <li>• Market Research Analyst</li> </ul>
<b>Local Employment Projections</b>	5% Growth for New River Region through 2024 571 Annual job openings	




Science, Technology, Engineering and Mathematics		
<p>Are you good at abstract thinking?</p> <p>Do you like to explore new ideas and test them methodically?</p> <p>Do you understand how things work?</p> <p>Do you enjoy designing and problem solving?</p> <p>Do you like working with math and science?</p>		
<p><b>High School Elective Courses to Consider Taking</b></p>	<ul style="list-style-type: none"> <li>Accounting</li> <li>Accounting, Advanced</li> <li>Anatomy &amp; Physiology</li> <li>Architectural Drawing &amp; Design</li> <li>Bioethics</li> <li>Biotechnology</li> <li>Cabinetmaking I, II</li> <li>Carpentry I, II, III</li> <li>Civil Engineering &amp; Architectural Design Graphics</li> <li>Civil Engineering &amp; Architecture</li> <li>Computer Information Systems</li> <li>Computer Information Systems, Advanced</li> <li>Computer Integrated Manufacturing</li> <li>Computer Network Software Operations</li> <li>Computer Network Software Operations, Advanced</li> <li>Computer Systems Technology I, II</li> <li>Construction Technology</li> <li>Cybersecurity Fundamentals</li> <li>Cybersecurity Network Software Operations</li> <li>Cybersecurity Network Software Operations, Advanced</li> <li>Cybersecurity Systems Technology</li> <li>Design, Multimedia &amp; Web Technologies</li> <li>Design, Multimedia &amp; Web Technologies, Advanced</li> <li>Drafting I, II, III</li> <li>Drawing &amp; Design, Advanced</li> <li>Electricity I, II, III</li> <li>Engineering Design Graphics</li> <li>Engineering Drawing &amp; Design</li> <li>Entrepreneurship Education Equine Management</li> <li>Floriculture</li> <li>Forestry &amp; Wildlife</li> <li>Genetics</li> <li>Horticulture Sciences</li> <li>Human Anatomy &amp; Physiology, DE</li> <li>HVACR I, II</li> <li>Information Technology (IT) Fundamentals</li> <li>Introduction to Engineering Design</li> <li>Introduction to Interactive Programming</li> <li>Introduction to Natural Resources</li> <li>Manufacturing Systems I, II</li> <li>Materials &amp; Processes Technology</li> <li>Medical Terminology</li> <li>Power &amp; Transportation</li> <li>Precision Machining Technology I, II</li> <li>Principals of Technology I, II</li> <li>Principles of Engineering</li> <li>Programming, Advanced</li> <li>Robotics I, II, III</li> <li>Small Animal Care</li> <li>Small Engine Repair</li> <li>Small Engines Repair, Advanced</li> <li>Technical Drawing &amp; Design</li> <li>Veterinary Science</li> <li>Virginia Teachers for Tomorrow</li> <li>Welding I, II</li> </ul>	
<p><b>Related Career Clusters</b></p>	<ul style="list-style-type: none"> <li>Agriculture, Food and Natural Resources</li> <li>Architecture and Construction</li> <li>Manufacturing</li> </ul>	
<p><b>Diploma with Some Training</b></p>	<p><b>Certification or Associate Degree</b></p>	<p><b>College Degree</b></p>
<ul style="list-style-type: none"> <li>Field Assistant</li> </ul>	<ul style="list-style-type: none"> <li>Lab Technician</li> <li>Engineering Technician</li> </ul>	<ul style="list-style-type: none"> <li>Industrial Engineers</li> <li>Mechanical Engineers</li> <li>Health/Environmental Scientist</li> </ul>
<p><b>Local Employment Projections</b></p>	<p>37 Annual job openings</p> <p>4% Growth for New River Region through 2024</p>	

Transportation, Distribution and 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? Do you like working with tools, machinery, and computers?		
<b>High School Elective Courses to Consider Taking</b>	<ul style="list-style-type: none"> <li>Accounting</li> <li>Accounting, Advanced</li> <li>Auto Technology I, II, III</li> <li>Computer Information Systems</li> <li>Computer Information Systems, Advanced</li> <li>Entrepreneurship Education</li> <li>Marketing</li> <li>Marketing Management</li> <li>Marketing, Advanced</li> <li>Office Administration</li> <li>Physics</li> <li>Power &amp; Transportation</li> <li>Precision Machining Technology I, II</li> <li>Principles of Business &amp; Marketing</li> <li>Applied Physics/Principles of Technology I, II</li> <li>Small Engine Repair</li> <li>Small Engines Repair, Advanced</li> <li>Welding I, II</li> </ul>	
<b>Related Career Clusters</b>	<ul style="list-style-type: none"> <li>Science, Technology, Engineering and Mathematics</li> <li>Information Technology</li> </ul>	
<b>Diploma with Some Training</b>	<b>Certification or Associate Degree</b>	<b>College Degree</b>
<ul style="list-style-type: none"> <li>Diesel Engine Specialists</li> <li>Vehicle Cleaners</li> <li>Industrial Truck Operators</li> <li>Delivery Service Drivers</li> <li>Packers</li> </ul>	<ul style="list-style-type: none"> <li>Automotive Service Technicians/Mechanics</li> <li>Tractor-Trailer Drivers</li> <li>Bus Drivers</li> <li>Billing Clerks</li> <li>Dispatchers</li> <li>GIS Specialist</li> </ul>	<ul style="list-style-type: none"> <li>Municipal Planner</li> <li>Transportation Engineer</li> <li>GIS Analyst</li> <li>Pilot</li> </ul>
<b>Local Employment Projections</b>	294 Annual job openings 6% Growth for New River Region through 2024	



# ACADEMIC & CAREER PLAN (ACP)

[Table of Contents](#)

 <b>Academic and Career Plan</b>			
Name		School	Student ID
Initiation date		Dates reviewed	
Career assessment ___/___ completed		Career goal I would like to pursue a career as a _____.	
Personality traits		Learning styles	
Selected pathway		Selected career cluster	
<b>Secondary Education Goal</b>		<b>Postsecondary Goal</b>	
Diploma type	Diploma recognition	College or university	Military
ACT score	PSAT score	Career / Workplace Readiness Certificate	Clubs and activities
SAT score	ASVAB score	Career / Workplace Readiness Certificate Score	Industry Credentials
Student signature		Guardian signature	Counselor signature

Plan of Study	Pathway		Cluster		School	
Year	7	8	9	10	11	12
Math	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses
Science	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses
Social Studies	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses
English	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses
Elective	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses
CTE Elective	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses	Recommended Courses

**Careers your student is interested in**  
*Your student can identify careers they enjoy by favoriting them on MajorClarity.*

**Colleges your student is interested in** *Your student can identify postsecondary institutions they are interested in attending by expressing interest on MajorClarity.*

## Postsecondary Opportunities for High School Students

The 2022 General Assembly passed [House Bill 1299](#) and [Senate Bill 738](#), which directed the Virginia Department of Education (VDOE) and the State Council of Higher Education for Virginia (SCHEV) to distribute to school divisions, and post on its website, information that assists high school students in making more informed decisions about their futures and ensures that such students are aware of the costs and benefits of different educational and certificate programs.

The [Postsecondary Opportunities for High School Students](#) webpage contains information for students on preparing, applying, and paying for college, as well as information on degrees and labor-market career projections. Please ensure this information is shared with students in each middle and high school in your division to assist them in best preparing for postsecondary education and training opportunities.

For additional information contact Brittany Everett, Postsecondary Access and Success Specialist, Office of Student Services, by email at [Brittany.Everett@doe.virginia.gov](mailto:Brittany.Everett@doe.virginia.gov), or by telephone at (804) 750-8120.

