

**OSBOURN HIGH SCHOOL
2019 COURSE CATALOG & PROGRAM OF STUDIES**

TABLE OF CONTENTS

<i>Superintendent's Message</i>	Page 1
<i>Career & Technical Education Programs</i>	
<i>Class Rank/GPA</i>	
<i>College & Career Center</i>	
<i>Grading Scale</i>	
<i>Mission Statement</i>	
<i>Naviance</i>	
<i>Policy Statement</i>	
<i>Preparing for College</i>	Page 2
<i>Dual Enrollment</i>	
<i>Honors & AP Classes</i>	
<i>Sequential Electives</i>	
<i>Verified Credits</i>	
<i>Weighted Grades</i>	Page 3
<i>Alternative Education</i>	
<i>Alternative Methods for Standard Units of Credit</i>	
<i>Summer School</i>	
<i>Transfer Students</i>	
<i>Virtual Virginia</i>	Page 4
<i>Virginia Graduation Requirements Fall 2011 to Fall 2017</i>	Page 5
<i>Virginia Graduation Requirements Fall 2018 & Beyond</i>	Page 6
<i>Applied Studies Diploma</i>	
<i>Expunging Grades for High School Credit</i>	
<i>Governor's School at Innovation Park</i>	
<i>Governor's Senior Year Plus</i>	
<i>Modified Standard Diploma</i>	
<i>NCAA Eligibility</i>	
<i>Reduced Course Load Policy</i>	
<i>Schedule & Course Change Policy</i>	
<i>Special Programs</i>	Page 7
<i>Board of Education Diploma Seals</i>	
<i>Promotion Policy & Grade Classification</i>	Page 8
<i>Business & Finance</i>	
<i>CTE Policy Statements</i>	
<i>Course Offering Information</i>	
<i>Governor's STEM Academy</i>	Page 9
<i>Arts & Humanities</i>	
<i>STEM & IT</i>	Page 11
<i>Health & Human Services</i>	Page 13
<i>English</i>	Page 14
<i>English for Speakers of Other Languages (ESOL)</i>	Page 16
<i>Fine & Performing Arts</i>	Page 17
<i>Health & Physical Education</i>	Page 22
<i>Mathematics</i>	Page 24
<i>Science</i>	Page 26
<i>Social Studies</i>	Page 30
<i>Special Education</i>	Page 32
<i>World Languages</i>	Page 34
<i>Special Programs</i>	
<i>Naval Science JROTC</i>	
<i>Governor's School @ Innovation Park</i>	Page 37
<i>Academic Career Plan</i>	Page 40
<i>Career Pathways Electives</i>	
<i>MCPS Academic & Career Plan</i>	
<i>Graduation Plan Fall 2011& Beyond</i>	

OSBOURN HIGH SCHOOL



HOME OF THE EAGLES!

OUR MISSION

Our Eagle nation is built upon

Rigor, Relevance, and Relationships through

- ★ Creating a Culture of Learning
- ★ Developing Student, Parent, and Teacher Ownership
- ★ Teaching 21st Century Knowledge and Skills
- ★ Systematic Interventions

OSBOURN HIGH SCHOOL COLLEGE & CAREER CENTER

The College & Career Center, accessible through the Counseling Center, has been developed as a resource for the school and community. Students can utilize the College & Career Center to become familiar with their individual abilities and interests as they relate to career choice and preparation. Students can access information about the world of work to aid them in making appropriate choices. Information about preparing to enter one's chosen field is also readily available. Learning about the connections between current courses, college, and work helps students to appreciate the relevance of high school to their long-term career and personal goals. Gaining early access to accurate information aids students in becoming knowledgeable consumers of education. Many jobs in society today require educational preparation beyond high school. Students who hope to earn a living wage and enjoy a measure of job security must develop specialized skills and prepare for a lifetime of continuing education. At Osborn High School, students can do this by completing a career or technical education sequence and/or taking courses to prepare for college.

NAVIANCE

Naviance is a comprehensive website that students and parents can use in making decisions about courses, colleges, and careers. Naviance is linked with Naviance Succeed, a service that the OHS Counseling & Student Services Department uses to analyze data about college and career plans, so it provides up-to-date information that is specific to our school. Virginia graduation requirements requires students to have an online experience. All Osborn students will complete seventeen grade appropriate lessons from Naviance to satisfy this online graduation requirement. To visit Naviance go to <http://student.naviance.com> You will need a personal access code to register. Please contact your student's school counselor to obtain this code and for any additional information.

PREPARING FOR COLLEGE

Formal education after high school is a reality for the majority of Osborn High School graduates. Virginia has a very high quality and affordable community college system where students may prepare for employment or transfer to four-year universities. There are many technical schools students may access after graduation to enhance their work skills. Regardless of a student's career path, having accurate information in a timely fashion will help them to be prepared and to ensure that they have many opportunities and choices. As students plan for college, it is very important that they become aware of the admission requirements of the schools in which they are interested. Students should visit the College & Career Center at OHS or see their counselor to find out about grade point average, SAT, ACT, and high school course completion requirements for their chosen colleges. For example, Northern Virginia Community College (NVCC) has an open enrollment

policy. First year students must take placement assessments in reading, writing, and mathematics. Students who do not earn satisfactory scores must complete developmental studies courses at NVCC, which do not count for college credit.

Opportunities to become familiar with college and career planning are available through classroom presentations and evening programs provided by the Counseling & Instructional Services Department for parents and students. Students are also encouraged to seek assistance from their counselor, the College and Career Center Coordinator, and specific college websites.

CAREER AND TECHNICAL EDUCATION PROGRAMS

By completing Career and Technical Education programs at Osborn High School, students can develop marketable skills, which will allow them to enter the competitive labor market directly after high school. Completion of one or more vocational sequences also provides students with a solid foundation for further education. Osborn High School offers several programs that prepare students for the workplace and to continue with lifelong learning.

POLICY STATEMENT

Manassas City Public Schools (MCPS) does not discriminate in employment nor in its educational programs, services and activities on the basis of race, color, religion, national origin, sex, gender identity, sexual orientation, pregnancy, childbirth or related medical conditions, age, marital status, veteran status, disability, or any other basis prohibited by law. Course offering subject to change due to enrollment, staffing, and budget.

Equal opportunities in career and technical education programs have been provided to persons without discrimination on the basis of gender, race, color, national origin, religion, age, political affiliation, veteran status, or persons with disabilities. (Assurance Statement 18), (8VAC 20-120-100)

GRADE POINT AVERAGE (GPA)

A student's grade point average is computed using the following scale:

Effective 2009

Grading Scale	Quality Points	Honors	AP
A = 90 - 100	4.0	4.5	5.0
B = 80 - 89	3.0	3.5	4.0
C = 70 - 79	2.0	2.5	3.0
D = 60 - 69	1.0	1.0	1.0
F = Below 60	0.0	0.0	0.0

Effective 2016, an AP course grade of "D" (60 – 69) will receive a GPA weight of 1.4.

Note: Courses taken on a pass/fail status will not be calculated into GPA or class rank. In order to be eligible for the honor roll, students must take a minimum of six graded courses. Courses taken on a pass/fail status do not qualify as graded courses for honor roll purposes.

GPA is calculated by noting the Quality Points earned for each course taken. (Note: AP and Honors courses are weighted.) Add the Quality Points and divide by the total credits attempted. The result is the GPA.

CLASS RANK

Official class rank is calculated for students in the fall of their senior year using grades earned through the end of their junior year. Final GPA and class rank will be calculated at the end of senior year upon receipt of final grades.

PLACEMENT OFFERINGS

HONORS CLASSES

Honors courses are designed to provide an instructional setting for academically talented and motivated students. While in some cases the instructional objectives for honors work may be the same as for regular courses, they are pursued in different ways, are covered in more depth, and require greater use of abstract and higher level thinking skills. Students are also expected to work more independently and may undertake research and writing projects of a more rigorous and sophisticated nature than those required in a regular level class.

AP CLASSES

Advanced Placement courses are those for which an Educational Testing Service Advanced Placement examination exists and the level of the rigor is at the college-level. A qualifying score on an Advanced Placement exam may earn the student college credit or advanced standing in the subject at many colleges. The curriculum for an AP course is dictated by CollegeBoard and must be followed by both teacher and student to maximize a student's chance for success on the AP exam. **Students enrolled in an AP course are expected to take the corresponding AP exam in May.**

Participation in these courses is based on teacher recommendation. **Certain Honors and AP courses may have required prerequisite course work as well as required summer reading and/or assignments. Students are expected to remain in their AP classes for the entire school year.**

WEIGHTED GRADES

Advanced Placement courses represent a most demanding and competitive college preparation curriculum. Students who elect to take these courses are aspiring beyond the minimum requirements of the Advanced Studies Diploma. The majority of AP classes may require summer readings or assignments. Students enrolled in AP courses are expected to take the corresponding AP exam. **Students are expected to remain in their AP classes for the entire school year.**

Advanced Placement, Dual Enrollment and Governor School courses are weighted by an additional quality point if at least a "C" average is earned: A = 5.0, B = 4.0, C = 3.0, D = 1.4, F = 0. Those courses are:

AP Studio Art	AP Latin
AP Art History	AP Physics 1, 2 & C
AP Biology	AP Psychology
AP Chemistry	AP Spanish Language
AP Calculus AB & BC	AP Statistics
AP English 12 Lit & Composition	AP US Government
AP English Lang and Composition	AP VA History
AP Environmental Science	AP World History
AP Human Geography	

Honors courses also represent a demanding and challenging curriculum and are weighted by 0.5 of an additional quality point if at least a "C" average is earned: A = 4.5, B = 3.5, C = 2.5, D = 1.0, F = 0. Honors courses are offered in the following subjects:

Algebra 2	Geometry
American Civics/Studies	Symphonic Band
Art	Symphonic Orchestra
Biology	US/VA Government
Chemistry	US/VA History
CenterStage-Mixed Choir	World Geography
Computer Science	World History 1
Earth Science	World History 2
English 9,10,11,12	World Languages

The following courses are considered Honors level and are weighted on an Honors scale:

Computer Science	Pre-Calculus
World Languages beyond Level 3	Calculus 1

DUAL ENROLLMENT

Dual enrollment is an enrichment opportunity that allows qualified high school students to take college courses through NVCC, earn college credit and receive high school credit for these courses. Dual enrolled courses are indicated in the course catalog. Dual enrolled courses are weighted by an additional quality point if at least a "D" average is earned: A = 5.0, B = 4.0, C = 3.0, D = 1.4, F = 0. Students are required to pass an entrance test prior to participating in the dual enrollment process, have a 2.0 GPA, as well as seek applicable college/university admission. Additional information will be available from your counselor as you plan your course of study. Dual Enrollment courses include Accounting, Auto Technology 1 and 2, Criminal Justice, English 12, US History, and US Government. Students planning to take courses at Northern Virginia Community College (NVCC) need to meet with their counselors for specific information and to ensure completion of graduation requirements.

VERIFIED CREDIT REQUIREMENTS & SOL TESTING

The Virginia Department of Education began a testing program in 1998 called the Virginia Standards of Learning (SOLs). This testing program impacted students entering 9th grade in Fall 2000 and after. Students must pass required courses for graduation as well as pass a predetermined number of SOL tests in order to earn a high school diploma. Graduation requirements may be found on page 4 and 5 of this catalog.

Students Entering 9th Grade Prior to Fall 2011

Diploma Type	Standard Credits	Verified Credits
Standard	22	6
Advanced Studies	24	9

Students Entering 9th Grade Fall 2011 to Fall 2017

Diploma Type	Standard Credits	Verified Credits
Standard	22	6
Advanced Studies	26	9

Students Entering 9th Grade Fall 2018 and beyond

Diploma Type	Standard Credits	Verified Credits
Standard	22	5
Advanced Studies	26	5

Students will take all applicable end-of-course Standards of Learning (SOL) tests. Students who achieve a passing score on an end-of-course SOL test and pass the course will be awarded a VERIFIED CREDIT in that course. Students may earn verified credits in any courses for which end-of-course SOL tests are given. Students pursuing the Modified Standard Diploma shall meet literacy and numeracy requirements according to guidelines set by the Virginia Board of Education.

STUDENT-SELECT VERIFIED CREDIT

Certain courses prepare students to earn industry certification, a state license, and/or a national certification. These credentials are beneficial and sometimes essential to students seeking employment in a career field, and students who obtain these credentials may earn verified credits toward graduation. The Virginia Board of Education approves these alternate tests. Please see a counselor for further information.

SEQUENTIAL ELECTIVES

According to the Standards of Quality (SOQ) and beginning with the graduating class of 2003, students who plan to graduate with a Standard Diploma must complete at least two sequential electives. Students who are enrolled in and complete any career and technical education concentration or specialization that consists of at least two 36-week courses or semester equivalents that equal two 36-week courses will fully meet this requirement. One credit used to satisfy the fine or practical art requirement for the Standard Diploma can satisfy both requirements.

VIRTUAL VIRGINIA

Sponsored by the Virginia Department of Education, provides online courses to students across the Commonwealth. Students have the opportunity to enroll in courses that they may not be able to fit into their regular school day or take advantage of courses that are not currently available in their school. While students may earn high school credits through the Virtual Virginia program, Virtual Virginia credits may not take students beyond the eight (8) credits per year limit for Manassas City Public Schools' students. Exceptions may be made for students attending Governor's School @ Innovation Park. While some courses require tuition, any students participating in the Early College Scholars program have their AP course tuition covered by the Virginia Department of Education. Students who plan to take the AP exam are required to pay the AP exam fee. Students who enroll in a Virtual Virginia course and choose to drop the course once it begins, will be assessed a fee. Students who are successful in online classes are generally skilled in the use of technology, are self-disciplined and self-motivated, have good communication skills (reading and writing), and have an interest in interacting with others in an online course environment. To learn more about Virtual Virginia opportunities, please visit your school counselor.

SUMMER SCHOOL

Osborn also offer some courses over the summer. The Summer School Program allows students to take advantage of the Summer School Program to retake coursework that proved difficult for them during the previous school year. Students interested in exploring summer coursework should contact their school counselor for more information. All students taking a summer school course that requires an End-of-Course SOL test, must take the SOL test scheduled during summer school, unless the student has already passed the test. Students who have not passed a state assessment may be required to enroll in available summer remediation programs. In support of Manassas City Public Schools, students who must meet the Standards of Learning verified credit diploma criteria, an optional summer tutoring program is provided. This voluntary program is available to students who have passed their classroom instruction and received Carnegie credit, but have not earned verified credit due to failing the corresponding End-of-Course SOL test. Summer School courses not taken in Manassas City Public Schools must meet the requirements as outlined in regulation. See your school counselor for more information.

ALTERNATIVE METHODS FOR GRANTING STANDARD UNITS OF CREDIT

In some instances, currently enrolled students find it necessary to look for other options to earn a standard unit of credit. Students seeking to earn high school credits from educational institutions outside Manassas City Public Schools or the Virtual Virginia program must request permission to take the course. Credit will only be awarded for the course if permission is granted by the Directory of Counseling and Student Services prior to course enrollment. See your school counselor for more information about alternative options for earning standard units of credit.

ALTERNATIVE EDUCATION

The Individual Student Alternative Education Plan (ISAEP) is a program offered through the Virginia Department of Education, which provides students ages 16 through 18, who are at risk of dropping out of school, an opportunity to work toward a General Educational Development (GED) certificate while developing a vocational or career skill. Students must be referred to the program by the school counseling office, with the permission of the parents/guardians, and must meet the eligibility criteria to be admitted to the program. The ISAEP will only be considered for

students after all measures to maintain students in a traditional diploma program have been exhausted. Contact the school counseling office for more information regarding the program.

TRANSFER STUDENTS

Students who transfer to Osborn High School are provided an individualized graduation plan that allows the student from a public school system within the state of Virginia some flexibility in meeting graduation requirements as set forth by the Virginia Department of Education.

Verified Units of Credit Requirements for students entering the 9th grade for the first time prior to the 2018-2019 school year Transfer Students from Non-Virginia Public School.

Student enters during 9th grade or at the beginning of 10th grade: Student must obtain all six (6) required verified units of credit.	Student enters during 9th grade or at the beginning of 10th grade: Student must obtain all nine (9) required verified units of credit.
Student enters during 10th grade or at the beginning of 11th grade: Student must obtain four (4) verified units. One (1) in English One (1) in Math One (1) in History/Social Science One (1) in Science	Student enters during 10th grade or at the beginning of 11th grade: Student must obtain six (6) verified units. Two (2) in English One (1) in Math One (1) in History/Social Science One (1) in Science One (1) student selected
Student enters during 11th grade or at the beginning of 12th grade: Student must obtain two (2) verified units. One (1) in English One (1) student selected	Student enters during 11th grade or at the beginning of 12th grade: Student must obtain four (4) verified units. One (1) in English Three (3) student selected
Student enters during 12th grade: Student may apply for a waiver of verified units with the State Board of Education	Student enters during 12th grade: Student may apply for a waiver of verified units with the State Board of Education

Students may also be granted additional flexibility in meeting some of the course requirements for graduation as outlined in the Virginia Standards of Accreditation. Any student or parent with questions about graduation requirements for transfer students should consult with their assigned school counselor. Students whose parents are active duty military may receive additional flexibility as outlined in the Interstate Military Compact on Educational Opportunity for Military Children. Information for transfer students who enter during 10th grade in 2019-2020 and beyond is available in each school counseling office.

**VIRGINIA GRADUATION REQUIREMENTS
ADVANCED STUDIES DIPLOMA**

Students entering 9th grade in Fall 2011 to Fall 2017**

<u>COURSE</u>	<u># CREDITS</u>	<u>#VERIFIED CREDITS</u>
English	4	2*
Mathematics ¹	4	2
Laboratory Science ²	4	2
Social Studies ³	4	2
Foreign Language ⁴	3	
Health/PE	2	
Fine or Practical Arts	1	
Economics and Personal Finance	1	
Electives	3	
Student Selected Test ⁵	—	<u>1</u>
	26	9

- 1 Shall be at or above the level of Algebra I and shall include at least three different course selections from among Algebra, Geometry, Algebra 2, or other mathematics courses above the level of Algebra 2
- 2 Shall include course selections from at least three of the of the following four science disciplines: Earth Sciences, Biology, Chemistry, or Physics
- 3 Shall include US/VA History, US/VA Government, and two courses in either World History or Geography or both
- 4 Must include three years of one language or two years of two languages
- 5 May earn verified credit in computer science, technology, career or technical education, economics or other approved area

STANDARD DIPLOMA

Students entering 9th grade in Fall 2011 to Fall 2017 ** +

<u>COURSE</u>	<u># CREDITS</u>	<u>#VERIFIED CREDITS</u>
English	4	2*
Mathematics ¹	3	1
Laboratory Science ^{2, 6}	3	1
Social Studies ^{3, 6}	3	1
Health/PE	2	
Foreign Language, ⁷ Fine or Practical Arts, or Career and Tech Ed	2	
Economics and Personal Finance	1	
Electives ⁴	4	
Student Selected Test ⁵	—	<u>1</u>
	22	6

- 1 Shall be at or above the level of Algebra and shall include at least two course selections from among Algebra 1, Geometry, Algebra Functions and Data Analysis, Algebra 2, or other mathematic courses above the level of Algebra and Geometry
- 2 Shall include course selections from at least two of the following four science disciplines: Earth Sciences, Biology, Chemistry, or Physics
- 3 Shall include US/VA History, US/VA Government, and one course in either World History or Geography or both
- 4 At least two sequential electives from a variety of options
- 5 May substitute certification competency credential or license for verified credit
- 6 May earn verified credit in computer science, technology, career or technical education, economics or other approved area
- 7 Shall include 1 credit in a fine or performing arts or career and technical education

**** Students entering ninth grade for the first time in 2013-2014 must successfully complete one virtual course, which may be non-credit bearing.**

+ Earn a board-approved career and technical education credential to graduate.

DIPLOMA DE ESTUDIOS AVANZADOS 26 CRÉDITOS

**Estudiantes comenzando el 9no grado a partir
del otoño del 2011 hasta 2017****

<u>ASIGNATURA</u>	<u>#DE CRÉDITOS</u>	<u>#DE CRÉDITOS VERIFICADOS</u>
Inglés	4	2
Matemáticas ¹	4	2
Ciencias ²	4	2
Estudios Sociales ³	4	2
Idioma extranjero ⁴	3	
Salud y Educación Física	2	
Artes	1	
Economía y Finanzas Personal	1	
Electivos	3	
SOL seleccionado por Alumno ⁵	—	<u>1</u>
	26	9

- 1 Los créditos en Matemáticas deben estar por encima del nivel de Algebra 1, y deben incluir al menos tres diferentes cursos, como Algebra, Geometría, Algebra 2 u otro curso con nivel superior a Algebra 2.
- 2 En Ciencias deben tomar al menos tres de los siguientes: Ciencia de la Tierra, Biología, Química, o Física.
- 3 En Estudios Sociales deben estar incluidos: Historia de VA y Estados Unidos, Gobierno de VA y Estados Unidos y dos cursos más de Historia Mundial o Geografía Mundial o ambos.
- 4 En Idioma Extranjero deben tomar tres años de un idioma, o dos años en dos idiomas diferentes (dos de cada uno)
- 5 Ganar un crédito en verificado en ciencia en computación, tecnología, carrera o educación técnica, economía u otra área aprobada.

DIPLOMA STANDARD -22 CRÉDITOS

**Estudiantes comenzando el 9no grado a partir
del otoño del 2011 hasta 2017****

<u>ASIGNATURA</u>	<u>#DE CRÉDITOS</u>	<u>#DE CRÉDITOS VERIFICADOS</u>
Inglés	4	2
Matemáticas ¹	3	1
Ciencias ²	3	1
Estudios Sociales ^{3, 6}	3	1
Salud y Educación Física Idioma extranjero, Artes ⁷	2	
Educación Tecnológica	2	
Economía y Finanzas Personal	1	
Electivos ⁴	4	
SOL seleccionado por Alumno ⁵	—	<u>1</u>
	22	6

- 1 Los créditos en Matemáticas deben estar por encima del nivel de Algebra 1, y deben incluir al menos dos diferentes cursos, como Algebra; Geometría; Funciones Algebraicas y Análisis de Datos; Algebra2 u otro curso con nivel superior a Algebra y Geometría.
- 2 En Ciencias deben tomar al menos dos de los siguientes: Ciencia de la Tierra, Biología, Química, o Física
- 3 En Estudios Sociales deben estar incluidos: Historia de VA y Estados Unidos, Gobierno de VA y Estados Unidos y un curso más de Historia Mundial o Geografía Mundial o ambos.
- 4 Al menos dos electivos secuenciales
- 5 Pueden sustituir la certificación credencial de competencia o una licencia para el crédito verificado
- 6 Puede ganar créditos en ciencia en computación, tecnología, carrera o educación técnica, economía u otra área aprobada.
- 7 Debe incluir un crédito en arte o educación técnica.

****Estudiantes comenzando el 9no grado a partir del 2013-2014 deben completar exitosamente un curso virtual.**

+Obtener una credencial en carrera o educación técnica aprobada por la junta.

**VIRGINIA GRADUATION REQUIREMENTS
ADVANCED STUDIES DIPLOMA**

Students entering 9th grade in Fall 2018 and beyond **

<u>COURSE</u>	<u># CREDITS</u>	<u>#VERIFIED CREDITS</u>
English	4	2*
Mathematics ¹	4	1
Laboratory Science ²	4	1
Social Studies ³	4	1
Foreign Language ⁴	3	
Health/PE	2	
Fine or Practical Arts	1	
Economics and Personal Finance	1	
Electives	<u>3</u>	<u> </u>
	26	5

- 1 Shall be at or above the level of Algebra I and shall include at least three different course selections from among Algebra, Geometry, Algebra 2, or other mathematics courses above the level of Algebra 2
- 2 Shall include course selections from at least three of the of the following four science disciplines: Earth Sciences, Biology, Chemistry, or Physics
- 3 Shall include US/VA History, US/VA Government, and two courses in either World History or Geography or both
- 4 Must include three years of one language or two years of two languages
- 5 May earn verified credit in computer science, technology, career or technical education, economics or other approved area

STANDARD DIPLOMA

Students entering 9th grade in Fall 2018 and beyond ** +

<u>COURSE</u>	<u># CREDITS</u>	<u>#VERIFIED CREDITS</u>
English	4	2*
Mathematics ¹	3	1
Laboratory Science ^{2, 6}	3	1
Social Studies ^{3, 6}	3	1
Health/PE	2	
Foreign Language, ⁷ Fine or Practical Arts, or Career and Tech Ed	2	
Economics and Personal Finance	1	
Electives ⁴	<u>4</u>	<u> </u>
	22	5

- 1 Shall be at or above the level of Algebra and shall include at least two course selections from among Algebra 1, Geometry, Algebra Functions and Data Analysis, Algebra 2, or other mathematic courses above the level of Algebra and Geometry
- 2 Shall include course selections from at least two of the following four science disciplines: Earth Sciences, Biology, Chemistry, or Physics
- 3 Shall include US/VA History, US/VA Government, and one course in either World History or Geography or both
- 4 At least two sequential electives from a variety of options
- 5 May substitute certification competency credential or license for verified credit
- 6 May earn verified credit in computer science, technology, career or technical education, economics or other approved area
- 7 Shall include 1 credit in a fine or performing arts or career and technical education

**** Students entering ninth grade for the first time in 2013-2014 must successfully complete one virtual course, which may be non-credit bearing.**

+ Earn a board-approved career and technical education credential to graduate.

DIPLOMA DE ESTUDIOS AVANZADOS 26 CRÉDITOS

Estudiantes comenzando el 9no grado

a partir del otoño del 2018**

<u>ASIGNATURA</u>	<u>#DE CRÉDITOS</u>	<u>#DE CRÉDITOS VERIFICADOS</u>
Inglés	4	2
Matemáticas ¹	4	2
Ciencias ²	4	2
Estudios Sociales ³	4	2
Idioma extranjero ⁴	3	
Salud y Educación Física	2	
Artes	1	
Economía y Finanzas Personal	1	
Electivos	<u>3</u>	<u> </u>
	26	5

- 1 Los créditos en Matemáticas deben estar por encima del nivel de Algebra 1, y deben incluir al menos tres diferentes cursos, como Algebra, Geometría, Algebra 2 u otro curso con nivel superior a Algebra 2.
- 2 En Ciencias deben tomar al menos tres de los siguientes: Ciencia de la Tierra, Biología, Química, o Física.
- 3 En Estudios Sociales deben estar incluidos: Historia de VA y Estados Unidos, Gobierno de VA y Estados Unidos y dos cursos más de Historia Mundial o Geografía Mundial o ambos.
- 4 En Idioma Extranjero deben tomar tres años de un idioma, o dos años en dos idiomas diferentes (dos de cada uno)
- 5 Ganar un crédito en verificado en ciencia en computación, tecnología, carrera o educación técnica, economía u otra área aprobada.

DIPLOMA STANDARD -22 CRÉDITOS

Estudiantes comenzando el 9no grado

a partir del otoño del 2018**

<u>ASIGNATURA</u>	<u>#DE CRÉDITOS</u>	<u>#DE CRÉDITOS VERIFICADOS</u>
Inglés	4	2
Matemáticas ¹	3	1
Ciencias ²	3	1
Estudios Sociales ^{3 6}	3	1
Salud y Educación Física	2	
Idioma extranjero, Artes ⁷ Educación Tecnológica	2	
Economía y Finanzas Personal	1	
Electivos ⁴	<u>4</u>	<u> </u>
	22	5

- 1 Los créditos en Matemáticas deben estar por encima del nivel de Algebra 1, y deben incluir al menos dos diferentes cursos, como Algebra; Geometría; Funciones Algebraicas y Análisis de Datos; Algebra2 u otro curso con nivel superior a Algebra y Geometría.
- 2 En Ciencias deben tomar al menos dos de los siguientes: Ciencia de la Tierra, Biología, Química, o Física
- 3 En Estudios Sociales deben estar incluidos: Historia de VA y Estados Unidos, Gobierno de VA y Estados Unidos y un curso más de Historia Mundial o Geografía Mundial o ambos.
- 4 Al menos dos electivos secuenciales
- 5 Pueden sustituir la certificación credencial de competencia o una licencia para el crédito verificado
- 6 Puede ganar créditos en ciencia en computación, tecnología, carrera o educación técnica, economía u otra área aprobada.
- 7 Debe incluir un crédito en arte o educación técnica.

****Estudiantes comenzando el 9no grado a partir del 2013-2014 deben completar exitosamente un curso virtual.**

+Obtener una credencial en carrera o educación técnica aprobada por la junta.

APPLIED STUDIES DIPLOMA

This diploma is available to students with disabilities who complete the requirements of their IEP but do not meet the requirements for other diplomas (Advanced Studies or Standard Diploma).

MODIFIED STANDARD DIPLOMA

Students who meet the eligibility requirements should work with their school counselor to enroll in the appropriate courses to meet the diploma standards.

NCAA ELIGIBILITY

Many Osbourn High School student athletes are interested in continuing to participate in sports at the college level. Students must satisfy all Manassas City Public Schools requirements for graduation, NCAA eligibility, and college admission requirements in order to enter and be eligible to play for their chosen school. See your coach or counselor for specific information regarding SAT scores, grade point average, and core classes needed to become eligible for participation in NCAA athletic programs.

GOVERNOR'S SENIOR YEAR PLUS

Senior Year Plus offers two options to better prepare students for life after high school, while reducing the cost of college tuition and technical training. These options are called Early College Scholars and Path to Industry Certification: High School Industry Credentialing. Please meet with your counselor for further details.

THE GOVERNOR'S SCHOOL AT INNOVATION PARK

With its focus on Earth, The Governor's School at Innovation Park offers selected juniors and seniors from Manassas City, Manassas Park, and Prince William County an advanced and intensive program in STEM – science, technology, engineering, and mathematics. Students selected to attend the two-year program will attend classes at George Mason University's Prince William Campus each morning. At that campus, students will follow a sequence of courses designed to integrate mathematics and research with specializations in environmental biology, environmental chemistry, or environmental physics. Students will select which strand (biology, chemistry, or physics) they wish to pursue for the two-year study. Along with specifically designed coursework in that strand, students will be provided intensive study in mathematics that supports their scientific and research endeavors. Successful students will earn dual enrollment credits for high school mathematics and science, while also acquiring GMU credits. Governor School courses are weighted by an additional quality point if at least a "C" average is earned: A = 5.0, B = 4.0, C = 3.0, D = 1.0, F = 0. Students return to their base high schools each afternoon to complete other requirements for graduation.

EXPUNGING A GRADE FOR A HIGH SCHOOL CREDIT COURSE TAKEN IN MIDDLE SCHOOL

The Regulations Establishing Standards of Accrediting Public Schools in Virginia have provided parents with the option of requesting that grades be expunged from a student's transcript for any high school credit-bearing course taken in middle school. Requests to have a high school credit-bearing course grade removed from a student's transcript must be submitted in writing to the middle school Principal before the deadline established by the School Division prior to the student's entry into the ninth grade. Parents who elect to have a grade removed from the transcript should be aware the decision to have the grade removed is binding and that no grade or associated credit will be awarded once the request has been granted.

SPECIAL PROGRAMS

Students with specific educational needs may take special education classes following the state or federal process to determine student eligibility. The instructional setting for students with special needs will be determined by each student's Individual Education Program (IEP). Non-native English speakers with limited English proficiency are enrolled in the English for Speakers of Other Languages (ESOL) program.

REDUCED COURSE LOAD POLICY

The Standards for Accrediting Schools in Virginia include a provision requiring that all students in grades 1-12 shall maintain a full day schedule of classes unless a waiver is granted by the Superintendent or designee. Any student who is not in a dual enrollment program or work release program in association with a school-sponsored vocational course or in possession of a special education Individualized Education Plan (IEP) or Health Treatment Plan requiring an abbreviated schedule must seek a waiver through the Principal and the Superintendent's designee for less than a full day schedule. Such requests will be considered for 12th grade students only and shall be handled on an individual basis, but generally shall be granted only for health or family hardship reasons. **All waivers will require documentation before being granted and will be subject to continual monitoring through the year by school based personnel.**

The following are established as guidelines to be used at the high school level to determine if a student may be released for part of the school day:

1. Approval for a reduced course load may be granted if it can be determined that the student needs to work to assist in support of the family and/or to further his/her education.
2. In extreme cases, a reduced course load may be granted when evidence from past school records indicates that the student would benefit and the school environment for learning would be improved by early release of the student. This would require the recommendation of the Principal, following consultation with the parent, and the approval of the Director of Counseling and Student Services.
3. Approval may be granted if it can be determined that family responsibilities require that the student have an abbreviated day.
4. Approval may be granted if it can be determined that the student would benefit from a reduced course load due to his/her health.

Students must be enrolled in a combination of full-credit and/or half-credit courses totaling a minimum of four (4) credits per day; Teacher Assistant (TA) positions and courses being repeated for a higher grade will not count toward this total. Students approved for a reduced course load may be scheduled for late arrival and/or early release; they will not be permitted to have an "open" period in the middle of the day. Students who are granted a reduced course load will be responsible for their own transportation.

SCHEDULE & COURSE CHANGE POLICY

The course schedule distributed to each student at the beginning of the semester expresses the results of a prior planning process shaped by the student's educational needs, interests, and desires. During that process, school counselors and other personnel provide guidance to students and their parents so that individual choices are defined by an awareness of available options and the long-range impact of course selections. The results of this process are then used to build the master schedule, balance class sections, and equalize teaching loads.

Schedule/Course changes must occur during the timeframe published in the 2019-2020 Osbourn High School agenda and calendar. After this time, a committee consisting of the Director of Counseling and Student Services and school counselors will convene to review schedule or course change requests for

approval. **Students are expected to remain in their classes for the entire session.**

Students are asked to make very thoughtful and appropriate course selection choices. Students should work with their school counselor, teachers, and parents in selecting courses that support their career pathway as well as meet graduation requirements. Should a student elect to change a class, the following rules will apply:

- If a student drops a **yearlong course** more than one week after the issuance of the first interim, a notation will be made on the student's transcript indicating either "WP" (Withdrawn Passing) or a "WF" (Withdraw Failing) notation on the student's transcript. Yearlong courses dropped more than one week after the issuance of the second report card will result in an "F" (Failing) notation on the student's transcript.
- If a student drops a **first semester course** more than one week after the issuance of the first interim, a notation will be made on the student's transcript indicating either "WP" (Withdrawn Passing) or a "WF" (Withdraw Failing). A first semester course dropped more than one week after the issuance of the first report card will result in an "F" (Failing) notation on the student's transcript.
- If a student drops a **second semester course** more than one week after the issuance of the third interim, a notation will be made on the student's transcript indicating either "WP" (Withdrawn Passing) or a "WF" (Withdraw Failing). A second semester course dropped more than one week after the issuance of the third report card will result in an "F" (Failing) notation on the student's transcript.

***Note:** A student who has a passing grade may not withdraw after the first quarter of a year-long course unless extenuating circumstances are presented and approved by administration.

If the student wants to request a schedule change for the 2019-2020 school year, he/she must submit a course change request signed by his/her parent/guardian to the appropriate counselor by June 1, 2019. Changes to a student's schedule will not be made after the publication of student schedules except for compelling circumstances. Students who have a complete schedule will not be permitted to change their schedule during the first two weeks of school.

PROMOTION POLICY AND GRADE CLASSIFICATION

Any student interested in graduating early must have a written plan on file with his or her counselor and prior approval from the principal.

Tenth Grade - A student must have completed **two semesters** of high school and earned a minimum of **five (5) credits**, three (3) of which must be required for graduation*.

Eleventh Grade - A student must have completed **four semesters** of high school and earned a minimum of **ten (10) credits**, seven (7) of which must be required for graduation*.

Twelfth Grade - A student must have completed **six semesters** of high school and earned a minimum of **fifteen (15) credits***. Students must have a planned program providing for sufficient credits and verified credits to ensure graduation the following June or August.

*Required courses include English, Math, Science, Social Studies, and Physical Education.

If students earn fewer than the number of credits specified above, they are reclassified into their current grade level. As high school graduation depends on successfully passing a certain number of courses for credit and earning Verified Credits, students will only repeat those courses failed that are necessary for graduation. Students who fail courses may repeat those courses in summer school or during the following school year. Students who need Verified Credits can earn them

by repeating courses and/or taking SOL tests during summer school. Prior to the beginning of the next school year, student grade placement is based on successful completion of courses in summer school. Student grade placement is reviewed and verified by the counselor prior to the beginning of the school year.

BOARD OF EDUCATION DIPLOMA SEALS

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

STUDENTS WHO ENTERED NINTH GRADE IN FALL OF 2006 AND BEYOND:

The **Governor's Seal** will be awarded to students who complete the requirements for an Advanced Studies Diploma with an average grade of "B" or better, and successfully complete college-level coursework that will earn the student at least nine transferable college credits in Advanced Placement (AP), International Baccalaureate (IB), Cambridge, or dual enrollment courses.

The **Board of Education Seal** will be awarded to students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an average grade of "A."

The **Board of Education's Career and Technical Education Seal** will be awarded to students who earn a Standard or 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 of Education shall approve all professional licenses and examinations used to satisfy these requirements.

The **Board of Education's Seal of Advanced Mathematics and Technology** will be awarded to students who earn either a Standard or Advanced Studies Diploma and (i) satisfy all of the mathematics requirements for the Advanced Studies Diploma (four units of credit including Algebra 2; two verified units of credit) with a "B" average or better; and (ii) either (a) pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association; (b) acquire a professional license in a career and technical education field from the Commonwealth of Virginia; or (c) pass an examination approved by the board that confers college-level credit in a technology or computer science area. The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.

The **Board of Education's Seal for Excellence in Civics Education** will be awarded to students who earn either a Standard or 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; and, (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 would 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 will be deemed to have met this community service requirement.

The **Board of Education's Seal of Biliteracy** certifies attainment of a high level of proficiency by a graduating high school student in one or more languages in addition to English, and certifies that the graduate meets all of the following criteria:

a. The Board of Education's Seal of Biliteracy will be 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.

b. For purposes of this article, "foreign language" means a language other than English, and includes American Sign Language.

GOVERNOR'S STEM ACADEMY

The Governor's STEM Academy at Osbourn High School is one of only 22 Governor's STEM Academies in the Commonwealth of Virginia. The Academy provides students the opportunity to explore STEM careers and build knowledge that leads to postsecondary education and/or career opportunities. Students will enroll in Career and Technical education pathways along with math and science courses that emphasize academic rigor, critical thinking and project based learning. Students will have opportunities to pursue Work-Based Learning with local STEM industry partners. Upon completion of the Governor's STEM Academy Pathway, students will receive a Governor's STEM Academy Advanced Science and Technical Studies Seal on their diploma.

The Governor's STEM Academy at Osbourn High School is a select program. It is a partnership between Manassas City Public Schools, post-secondary institutions, and business and industry. Students must apply for admission, be accepted, commit to a program of study and maintain a grade point average of 3.0. Rising 9th and 10th graders may apply for admission to the Academy. Applications for the Academy are made available to students each Spring.

The Academy focuses instruction in three pathways: Facility and Mobile Equipment Maintenance, Network Systems & Cybersecurity, and Engineering Technology. Governor's STEM Academy students will select a pathway after successful completion of PLTW Introduction to Engineering.

FACILITY AND MOBILE EQUIPMENT MAINTENANCE

PLTW Introduction to Engineering
Auto Technology 1
Auto Technology 2
Auto Technology 3

NETWORK SYSTEMS/CYBERSECURITY

PLTW Introduction to Engineering
Computer Systems Technology 1
Computer Systems Technology 2
Computer Network Software Operations
Advanced Computer Network Software Operations

ENGINEERING TECHNOLOGY

PLTW Introduction to Engineering
PLTW Principles of Engineering
PLTW Civil Engineering or PLTW Digital Electronics
PLTW Engineering Design and Development

COURSE CATALOG

This Course Selection Catalog includes a comprehensive listing of all courses offered at Osbourn High School. The purpose of this catalog is to describe the courses in general terms. If more detailed information is needed regarding any course, the counselors and teachers can assist you.

Courses are offered contingent upon student interest and enrollment. **A minimum of 19 students may be required in order for a course to be offered.** Exceptions may be made for AP classes.

Course selection is a highly personal task and is based on a student's aptitude and interests, career plan, teacher suggestions, and requires close cooperation between the school, the student, and parents/guardians. Please plan and select courses carefully to ensure appropriate scheduling and minimal changes. The first week of school is reserved for addressing scheduling errors only. For example, a 10th grade student assigned to a 12th grade English class would be given priority. Requests for changes based on personal preference will not be honored.



INDICATES NEW COURSES

CTE Policy Statements

CTE Program Application

Prior to enrolling in Automotive, Commercial Photography, Cosmetology or EMT, students must complete the Vocational Program Application with their counselor and submit the application to the Osbourn High School Career and Technical Education Administrator.

CTE courses subject to cohort scheduling seats are limited. In Dual Enrollment classes priority placement in classes will be given to students who have applied and completed placement tests for Northern Virginia Community College Dual Enrollment.

OFFERINGS BY DEPARTMENT



Business & Finance

Membership in Future Business Leaders of America is highly encouraged.

Title: **ACCOUNTING (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None

Students study the basic principles, concepts, and practices of the accounting cycle for a service and a merchandising business. 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. Students learn fundamental accounting procedures using both manual and electronic systems.

Title: **ADVANCED ACCOUNTING (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Accounting

Students gain knowledge of advanced accounting principles, procedures, and techniques used to solve business problems and to make financial decisions. Students use accounting and spreadsheet software to analyze, synthesize, evaluate, and interpret business financial data. Students work in a technology-integrated environment using authentic workplace industry scenarios that reflect current industry trends and standards.

Title: **ENTREPRENEURSHIP (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None

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, successful business. Producing, organizing, marketing, merchandising, pricing strategies, and human relations are included. Students will work in teams to experience the competitive nature of the business world.

Title: **BUSINESS MANAGEMENT (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: none

Students study basic management concepts and leadership styles as they explore business organization, planning, economics, international business, and human relations issues such as employee motivation and conflict resolution.

Title: **DESIGN, MULTIMEDIA, AND WEB TECHNOLOGIES (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: None

Students will develop skills in applying principles of layout and design for both printed and web-based publications. Students will complete projects using a variety of software packages and explore legal and ethical issues as they relate to design and publication.

Title: **ADVANCED DESIGN, MULTIMEDIA, AND WEB TECHNOLOGIES (Grades 11-12)**

Credit: 1 (Elective)

Prerequisite: Design, Multimedia, and Web Technologies

Students will learn advanced skills for creating desktop-published, interactive multimedia, and website projects applying these skills to real-world projects. Students will use the Adobe Creative Suite software.

Title: **COMPUTER INFORMATION SYSTEMS (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None

Students apply problem solving to real-life situations through database, spreadsheet, word processing, presentation software, charting, and integrated activities. Students work individually and in groups. Successful completion of this course will prepare the student for industry certification.

Title: **ADVANCED COMPUTER INFORMATION SYSTEMS (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Computer Information Systems

Information Management; General Management; Operations Management; Information Support & Services; Networking Systems; Marketing Management; Engineering & Technology Health, Safety & Environmental Management; Sales & Service Students apply skills to real-life situations through advanced integrated software application, including printed, electronic, and web publications. Students work individually and in groups to

explore advanced computer maintenance activities, website development, programming, networking, emerging technology, and employability skills. Successful completion of this course will prepare the student for industry certification. **May be offered for Dual Enrollment credit through NVCC for students who qualify.**

Title: **ECONOMICS AND PERSONAL FINANCE (Grades 10-12)**

Credit: 1 Required for graduation.

Prerequisite: None

Students learn how to navigate the financial decisions they must face and to make informed decisions related to career exploration, budgeting, banking, credit, insurance, spending, taxes, saving, investing, buying/leasing a vehicle, living independently, and inheritance. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship and career success. In addition to developing personal finance skills, students in the 36-week course will also study basic occupational skills and concepts in preparation for entry-level employment in the field of finance. Students will prepare for an industry certification.

Title: **FASHION MARKETING (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: None

In this specialized course, students gain basic knowledge of the apparel and accessories industry and skills necessary for successful employment in the apparel businesses. Students develop general marketing skills necessary for successful employment in fashion marketing, the apparel and accessories industry, and specialized skills unique to fashion marketing. Personal selling, sales promotion, purchasing, physical distribution, market planning and product/service technology as well as academic skills (mathematics, science, English, and history/social science) related to the content are part of this course. Computer/technology application supporting this course are studied.

Title: **VIRGINIA TEACHERS FOR TOMORROW (Grades 10-12)**

Credit: 1 (Elective)

Prerequisites: None

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 CTSO (Career and Technical Student Organization), Educators Rising. **Offers dual enrollment credit through NVCC for students who qualify.**



ARTS & HUMANITIES

Title: **COMMERCIAL PHOTOGRAPHY 1 (Grades 9-11)**

Credit: 1 (Elective)

Prerequisite: None

This course provides students with an introduction to materials, equipment, and concepts related to the role of photography in society and as a vocational medium. Students learn principles of visual literacy, composition, and design in order to understand and interact with today's global multimedia society. Students will explore photographic history and processes while also practicing evaluation of photographic work through critiques. Additionally, students are taught industry-relevant technical skills and have the opportunity to work with a variety of technology, including digital cameras, design software, and editing tools. Students will stage, shoot, process, print, and present professional-grade images both analog and digital throughout the year, culminating in a final web portfolio. While all equipment is provided, this course carries a nominal fee used to provide students with certain required materials.

Title: **COMMERCIAL PHOTOGRAPHY 2 (Grades 10-12)**

Credit: 2 (2 Blocks) (Elective)

Prerequisite: Commercial Photography1

Students will continue to pursue concepts of visual literacy through photography. They will explore and express their individual interests and skills as a photographer while working with a variety of photographic technology in order to stage, shoot, process, print, and present professional-grade images. Students will examine various photographic career paths and practice photographic styles and techniques particular to those careers. They will also examine business practices all photographers must observe and will compile a portfolio of work to be used in order to pursue a related career. While all equipment is provided, this course carries a nominal fee used to provide students with certain required materials.

STEM AND INFORMATION TECHNOLOGY

Students will be scheduled in Technical Education offerings with preference given to students who complete all levels of the program. After these students have been accommodated, other students will be scheduled until the classes reach capacity in accordance with Career and Technical Education guidelines.

Title: **CYBERSECURITY FUNDAMENTALS (Grades 9-12)**

Credit: 1 (Elective)

Prerequisites: None

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.

Title: **CYBERSECURITY: COMPUTER SYSTEMS TECHNOLOGY (Grades 10-12)**

Credits: 1 (Elective)

Prerequisite: None

Students enter the world of computer technology and gain practical experience in assembling a computer system, installing an operating system, troubleshooting computers and peripherals, and using system tools and diagnostic software. They develop skills in computer networking and resource sharing. In addition, students explore the relationships between internal and external computer components. Emphasis is placed on customer service skills and career exploration. Upon successful completion of the course, students may qualify to take the A+ certification exam.

Project Lead the Way Course Progression		
Grade	Required PLTW Course	PLTW Focused Electives
9 th	Introduction to Engineering Design	
10 th	Principles of Engineering Design OR One PLTW focused elective course (with teacher approval)	Civil Engineering and Architecture AND/OR Digital Electronics AND/OR Aerospace Engineering
11 th	Principles of Engineering Design OR One PLTW focused elective course	Civil Engineering and Architecture AND/OR Digital Electronics AND/OR Aerospace Engineering
12 th	Engineering Design and Development	Civil Engineering and Architecture AND/OR Digital Electronics AND/OR Aerospace Engineering
<ul style="list-style-type: none"> Students must complete Principles of Engineering Design prior to Engineering Design and Development. Concurrent enrollment in PLTW courses permitted with teacher and counselor approval. Students may start the PLTW program in grades 9, 10, or 11 and complete Introduction to Engineering Design and Principles of Engineering for a sequential elective.		

Title: **PLTW AEROSPACE ENGINEERING (Grades 10-12)** ★

Credit: 1 (Elective)

Prerequisite: PLTW Introduction to Engineering Design

In this specialized course for Project Lead the Way (PLTW), students are taught about aerodynamics, astronautics, dynamics of flight, building an airfoil, calculating lift, manufacturing a glider, space-lie sciences, and systems engineering through hands-on engineering problems and projects.

Title: **PLTW INTRODUCTION TO ENGINEERING DESIGN (IED) (Grades 9-11)**

Credit: 1 (Elective)

Prerequisite: None

In this course, students use 3D solid modeling design software to help them design solutions to solve proposed problems. Students learn how to document their work and communicate solutions to peers and members of the professional community. This course is designed for 9 or 10 grade students. The major focus of the IED course is to expose students to the design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards and technical documentation.

Title: **PLTW ENGINEERING DESIGN AND DEVELOPMENT (Grade 12)**

Credit: 1 (Elective)

Prerequisites: Introduction to Engineering Design (PLTW)

In this capstone, course in Project Lead the Way (PLTW), teams of students, guided by community mentors, work together to research, design, and construct solutions to engineering problems. Students synthesize knowledge, skills, and abilities through an authentic engineering experience. Students are expected to develop and formally present an independent-study project and a team-oriented project that are critiqued by an evaluation committee.

Title: **PLTW PRINCIPLES OF ENGINEERING (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: PLTW Intro to Engineering Design

This survey course of engineering exposes students to some of the major concepts encountered in a postsecondary engineering course of study. Students have an opportunity to investigate engineering and high-tech careers and to develop skills and understanding of course concepts. Students employ engineering and scientific concepts in the solution of engineering design problems. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students also learn how to document their work and communicate their solutions to peers and members of the professional community.

Title: **PLTW DIGITAL ELECTRONICS (Grades 10-12)**

Credits: 1 (Elective)

Prerequisite: Principles of Engineering (PLTW)

This pre-engineering course is designed to follow two core courses, Principles of Engineering and Introduction to Engineering Design, as part of a national engineering program. Students use computer simulations to learn about the logic of electronics as they design, test, and actually construct circuits and devices. Students apply control system programming and explore sequential logic and digital circuitry fundamentals. Topics in computer circuitry are also presented.

Title: **PLTW CIVIL ENGINEERING AND ARCHITECTURE (Grades 10-12)**

Credits: 1 (Elective)

Prerequisite: Principles of Engineering (PLTW)

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. As part of the STEM Academy Engineering and Technology pathway students will integrate science, technology, engineering and math in to the study of civil engineering and infrastructure systems.

Title: **COMPUTER NETWORK SOFTWARE OPERATIONS (Grades 11-12)**

Credit: 1 (Elective)

Prerequisite: Computer Systems Technology

Computer Network 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 install and configure network cards and connect them to networks. Students learn how to install the operating systems, set up and manage accounts, load software, and establish and implement security plans. This course may cover software-based network operating systems, such as Windows Server or Linux.

Title: **TECHNOLOGY OF ROBOTICS DESIGN (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Intro to Engineering Design (PLTW)

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.



Title: **CARPENTRY 1 (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Construction Technology

Carpentry 1 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.

Title: **CONSTRUCTION TECHNOLOGY (Grades 9-11)**

Credit: 1 (Elective)

Prerequisite: None

Students will design and build scale and full-size structures and work with projects that help them understand the jobs of architects, carpenters, electricians, plumbers, surveyors, contractors, masons, and design engineers. The class will also examine the impact of construction, the construction process, types of structures, and careers associated with construction.

Title: **PRODUCTION SYSTEMS (Grades 9-12)**

Credit: 1 (Elective)

Prerequisites: None

Students assess the relationship between production and society as they compose design portfolios, construct production prototypes, and apply automation to evaluate their solutions to technological problems. Students will use science, technology, engineering and math to build and design products.

The OHS Auto Tech program is NATEF Certified.

Title: **AUTO TECHNOLOGY 1 (Grades 10-11)**

Credit: 2 (2 Blocks) (Elective)

Prerequisite: CTE Application

Auto Tech provides a training program for developing the basic knowledge and skills to inspect, diagnose, and repair automotive vehicles. Manual skills are developed in the practical lab work. Thorough understanding of the principles and theory involved in the operation of the modern automobile is developed through class assignments, discussions, videos, and lab practice. Areas of concentration are brakes and electrical of the Automotive Service Excellence (ASE). Competencies can be met for industry certification. **Auto Tech courses offer dual enrollment credit through NVCC for students who qualify.**

Title: **AUTO TECHNOLOGY 2 (Grades 11-12)**

Credits: 2 (2 Blocks) (Elective)

Prerequisite: Auto Technology 1

This course represents the advanced competencies from National Automotive Technician's Education Foundation's (NATEF's) Maintenance and Light Repair accredited program. Automotive instruction is given in the theory and manipulative skills required for doing major repairs to the engine, suspension, steering, and electrical systems of automotive vehicles of today and the future. Automotive Service Excellence industry certification is possible. NATEF required additional hours will be earned through Internship Program. **Auto Tech courses offer dual enrollment credit through NVCC for students who qualify.**

Title: HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION 1 (Grades 10-12)

Credits: 1 (Elective)

Prerequisite: None (Construction Technology is recommended)

In this first course of the instructional program, students are taught to professionally install, repair, and maintain the operating conditions of heating, air-conditioning, and refrigeration systems. Students work with piping and tubing, study the principles of heat and electricity, install duct systems, and comply with EPA regulations. Completion of the two-course sequence may prepare students for a number of certification exams, helpful for employment in a variety of HVACR occupations.

Title: HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION 2 (Grades 11-12)

Credits: 2 (2 Blocks) (Elective)

Prerequisite: Heating, Ventilation, Air Conditioning, and Refrigeration 1

This instructional program teaches students to professionally install, repair, and maintain the operating conditions of heating and cooling systems. Students also explore emerging technologies, EPA regulations and conservation techniques, and R-410A systems. Completion of this sequence may prepare students for a number of certification exams, helpful for employment in a variety of HVACR occupations.

Title: PROGRAMMING (CODING) (Grades 9-12)

Credits: 1 (Elective)

Prerequisite: None (CIS and/or ACIS Recommended)

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.

HEALTH AND HUMAN SERVICES

Title: COSMETOLOGY 1 (Grade 10-11)

Credits: 2 (2 Blocks) (Elective)

Prerequisite: CTE Application

In this introductory 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. Students will have an opportunity to participate in community service projects, field trips, and competitions. Membership in SkillsUSA encouraged.

Title: COSMETOLOGY 2 (Grade 11-12)

Credits: 2 (2 Blocks) (Elective)

Prerequisite: Cosmetology 1

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 cosmetic artistic skills. 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. Successful competency completion prepares the student for the Virginia State Licensing Exam. Students will have an opportunity to participate in community service projects, field trips, and competitions. Membership in SkillsUSA encouraged.

Title: CRIMINAL JUSTICE 1 (Grades 11-12)

Credit: 1 (Elective)

Prerequisite: CTE Application

This course prepares students to learn the principles, techniques, and practices for pursuing careers within security and the criminal justice system, as well as entrance into post-secondary education. Specific training will be provided in criminal law, investigation, security training, emergency response, and police operations. **Criminal Justice 1 course offers dual enrollment credit through NVCC for students who qualify.**

Title: CRIMINAL JUSTICE 2 (Grade 12)

Credits: 2 (2 Blocks) (Elective)

Prerequisite: Criminal Justice 1

Students will learn the legal foundations and processes, principles, techniques, and practices for exploring careers within the criminal justice system. Students combine classroom instruction and supervised practical experience in crime scene investigations, patrol operations, corrections, arrest procedures, and defensive tactics. Successful completion of an Emergency Tele-Communicator course prepares students for an Emergency Dispatch Certification test.

Title: EMERGENCY MEDICAL TECHNICIAN 1 (Grades 11-12)

Credits: Credits: 2 (2 Blocks) (Elective)

Prerequisite: Students must be at least 16 years old prior to the first day of EMT instruction. Completed CTE Application

Students explore and apply the fundamentals of emergency medical services, anatomy, physiology, and medical terminology while demonstrating skills in assessing and managing patient care, including assessing the scene, understanding shock, resuscitation, and trauma. Supervised field experience outside of school hours is required. Successful completion of this course and instructor endorsement qualifies students to enroll in EMT 2 to complete the program sequence. Successful completion of the second course in the sequence (to be offered in 2018-19) will earn the student CTE completer status. Successful completion of all course requirements and instructor endorsement may lead to eligibility to take the Virginia State Psychomotor Exam and the National Registry EMT cognitive exam.

Title: EMERGENCY MEDICAL TECHNICIAN 2 (Grades 11-12)

Credits: 2 (Elective)

Prerequisite: Emergency Medical Technician 1

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

English



HONORS AND AP CLASSES MAY REQUIRE SUMMER ASSIGNMENTS.

Title: **ENGLISH 9 (Grade 9)**

Credit: 1

Prerequisite: English 8

English 9 focuses on grammar and composition skills, development of basic research skills, and fluency in language. Literary analysis of a variety of poems, short stories, plays, and nonfiction is included. Students complete a research project. Students study at least one novel. Students complete common unit assessments at the end of each unit.

Title: **HONORS ENGLISH 9 (Grade 9)**

Credit: 1

Prerequisite: English 8 with a grade of "B" or better, passed 8th grade reading sol

Honors English 9 focuses on advanced grammar and composition skills. Students study several novels as well as epic dramatic works, short stories, plays, and nonfiction. The writing focus includes literary analysis. Students complete a research project. Students complete common unit assessments at the end of each unit.

Title: **ENGLISH 10 (Grade 10)**

Credit: 1

Prerequisite: English 9

English 10 stresses composition skills, effective communication, written and oral skills, and literary analysis. Students study novels, short stories, dramatic works, nonfiction, and poetry. Students complete a research paper assignment. Common unit assessments are given at the end of each unit.

Title: **HONORS ENGLISH 10 (Grade 10)**

Credit: 1

Prerequisite: English 9 or English 9 Honors with grade of "B" or better

English 10 stresses composition, effective communication, written and oral skills, and literary analysis. Students study novels, short stories, dramatic works, nonfiction, and poetry. Reading assignments are extensive and require independent comprehension and analysis. Students participate in small and large group discussions. Students complete a research paper assignment. Common unit assessments are given at the end of each unit.

Title: **ENGLISH 11 (Grade 11)**

Credit: 1

Prerequisite: English 10

English 11 includes a chronological study of American literature with an emphasis on literary analysis. Students complete a research project with an annotated bibliography. Persuasive and analytical writings are emphasized. Common unit assessments are given at the end of each unit.

Title: **HONORS AMERICAN CIVICS/STUDIES (Grade 11)**

Credits: 2 (History/English)

Prerequisites: Honors World History 1 or Honors World History 2 AND Honors English 10

American Civics is a collaborative co-teaching classroom environment between English and social studies, which combines American literature and US/VA history and probes the American experience using enduring themes such as the pursuit of the American Dream. Both a history and English teacher in a double block will teach the 11th grade honors level course. These courses are taken together and are an option in fulfilling

the social studies and English graduation requirements. Students will gain a deeper understanding of the parallel nature of American literature and US/VA history, as well as pass both the English 11 and US/VA history End of Course SOL tests.

Title: **HONORS ENGLISH 11 (Grade 11)**

Credit: 1

Prerequisite: English 10 or Honors English 10 with a grade of "B" or better

Honors English 11 includes an advanced study of American literature. Independent comprehension and analysis of selected works is expected. Students will complete a persuasive research paper. Common unit assignments are given at the end of each unit.

Title: **ENGLISH 11 AP LANGUAGE AND COMPOSITION (Grade 11)**

Credit: 1

Prerequisite: English 10 or Honors English 10 with a grade of "B" or better

Students study advanced composition and analysis of language at a level equivalent to an introductory college course. Students practice research skills to lead towards persuasive writing as well as writing synthesize American literature and rhetoric. Most readings require critical thinking as well as analytic writing. Students frequently take part in small and large group discussions. **Students enrolled in the course must take the AP Language and Composition exam in May**, which may earn them college credit. Students are expected to remain in their AP class for the entire school year.

Title: **ENGLISH 12 (Grade 12)**

Credit: 1

Prerequisite: English 11

English 12 includes the refinement of composition techniques in preparation for college work. Grammar and usage skills are reviewed. Literature consists of the study and critical review of British literature. Authentic research will address topics relevant to the student's future with all students preparing an oral presentation of their research findings. Common unit assessments are given at the end of each unit.

Title: **HONORS ENGLISH 12 (Grade 12)**

Credit: 1

Prerequisite: English 11 or Honors English 11 or AP Language and Composition with a grade of "B" or better

Honors English 12 consists of an advanced study of British literature. Students will also continue developing composition skills needed for college work. Students are expected to complete a research project. Common unit assessments are given at the end of each unit.

Title: **ENGLISH 12 AP LITERATURE AND COMPOSITION (Grade 12)**

Credit: 1

Prerequisite: Honors English 11 or English 11 AP Language

This course, equivalent to an introductory college course, engages students in careful reading and critical analysis of literature. Independent reading, research, and critical thinking, as well as the development of advanced composition skills, are stressed. Students frequently take part in small and large group discussions. Authentic research will address topics relevant to the student's future with all students preparing an oral presentation of their research findings. Students who do well on the AP Literature and Composition exam in May can be exempt from freshman college English or receive college credit. Students enrolled in the class must take the AP Literature exam. Students are expected to remain in their AP class for the entire school year. Common unit assessments are given at the end of each unit. **Students enrolled in AP classes are expected to take the AP exam.**

Title: **DUAL ENROLLMENT ENGLISH A & B (Grade 12)**

Credit: .5 each semester

Prerequisite: Honors English 11 or AP English 11, Virginia placement test, appropriate paperwork, accepted into NVCC, 2.0 GPA, AND enrolled in a career pathway program that leads to certification and/or goal of matriculating into a community college after high school.

This course is equivalent to NVCC ENG 111 and ENG 112 and introduces students to critical thinking and fundamentals of academic writing. Writing activities will include exposition and argumentation with at least one researched essay. Students will continue to develop college writing with increased emphasis on critical essays, argumentation, and research. Students learn to locate, evaluate, integrate, and document sources and effectively edit for style and usage. This course is conducted in a blended learning environment where students complete the course through Blackboard with a NVCC professor while sitting with a facilitator at the school. Upon successful completion of both semesters of this course, students will earn high school credit and NVCC credit.

Title: **HONORS ADVANCED COMPOSITION 1, 2, 3 (Writing Center) (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Application and English Teacher Recommendation

Students learn tutoring skills to support their peers with reflective writing and developing writing strategies. Students use professional journals, collaboration with other writing courses, and class instruction to provide one-on-one peer instruction. Students will learn and execute the tasks associated with scheduling and running a student-run writing center as well as collecting, analyzing, and sharing data.

Title: **CREATIVE WRITING 1 (Grades 10-12)**

Credit: .5 (Elective)

Prerequisite: Successful Completion of previous English course

This course is for students who love to write. This workshop course focuses on the student writing and revising his/her original works of fiction, non-fiction, and poetry. The student will produce a portfolio of original literature. Daily writing exercises, journaling, and projects are required. Students will work in reading/writing groups to provide and receive extensive feedback.

Title: **CREATIVE WRITING 2 (Grades 11-12)**

Credit: .5 (Elective)

Prerequisite: Creative Writing 1 or Journalism 1 or Graphics 1 or Advanced Art

This workshop course continues from Creative Writing 1 with in-depth crafting of student writing. Students will work independently in reading/writing groups to provide and receive extensive feedback. Students will be responsible for the development and publication of the school literary magazine.

Title: **CREATIVE WRITING 3 (Grades 11-12)**

Credit: .5 (Elective)

Prerequisite: Creative Writing 2

In this semester class the students will have the opportunity for advanced creative writing work; they will also plan and design the school's literary magazine as they review, edit, and evaluate the writings of others for publication. Students desiring to be on the staff of the literary magazine may select this class.

Title: **DEVELOPING LITERACIES (Grade 9)**

Credit: .5 per semester (Elective)

Prerequisite: Referral from RTI team

The intervention course utilizes reading and writing strategies to improve student content literacy. The course is designed to provide the student with live-taught direct instruction on reading and writing skills as well as provide differentiated instruction with an adaptive instructional software.

Title: **CONTINUING LITERACIES (Grade 10)**

Credit: .5 per semester (Elective)

Prerequisite: Referral from RTI team & Developing Literacies

The intervention course continues to utilize reading and writing strategies to improve student content literacy. The course is designed to provide the student with live-taught direct instruction on reading and writing skills as well as provide differentiated instruction with an adaptive instructional software.

Title: **ENGLISH FOUNDATIONS 1 (Grades 10-11)**

Credit: 1 (Elective)

Prerequisite: Referral from RTI team

This online intervention course provides students with instruction on reading and writing skills to improve student content literacy.

Title: **READING SKILLS AND STRATEGIES (Grade 12)**

Credit: .5 (Elective)

Prerequisite: Referral from RTI team & Failed EOC Reading SOL

This online intervention course provides students with instruction on reading skills to improve student content literacy. The course is designed to help students pass high-stakes reading assessments.

Title: **WRITING SKILLS AND STRATEGIES (Grade 12)**

Credit: .5 (Elective)

Prerequisite: Referral from RTI team & Failed EOC Writing SOL

This online intervention course provides students with instruction on writing skills to improve student content literacy. The course is designed to help students pass high-stakes writing assessments.

Title: **JOURNALISM 1 (Grades 9-11)**

Credit: 1 (Elective)

Prerequisite: Successful completion of previous English course

This yearlong course teaches the basic principles of both yearbook and newspaper journalism. Topics covered include news, feature, editorial, sports writing; layout and design; effective use of photographs; desktop publishing and journalism law and ethics. Strong writing skills are recommended. Future members of the newspaper and yearbook staffs are selected from this group.

Title: **JOURNALISM 2-NEWSPAPER (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Journalism 1 or middle school journalism equivalent

The yearlong newspaper class produces the student newspaper, *The Talon*. Students plan each issue; conduct interviews for stories; write news, features, sports, and editorials; take and prepare photographs in Photoshop; create pages on InDesign. Considerable time outside of school hours is **required** to successfully meet deadlines. Specific guidelines for Journalism 2-Newspaper are available from the advisor.

Title: **JOURNALISM 3-NEWSPAPER (Grades 11-12)**

Credit: 1 (Elective)

Prerequisite: Journalism 2-Newspaper

Duties are the same as in Journalism 2-Newspaper, with the added responsibilities of taking a leadership role, training new members, and preparing for publication. Primary editors for *The Talon* are selected from this group.

Title: **JOURNALISM 4-NEWSPAPER (Grade 12)**

Credit: 1 (Elective)

Prerequisite: Journalism 3-Newspaper

Duties are the same as in Journalism 3-Newspaper, with the added responsibilities of taking a leadership role, training new members, and preparing for publication. Primary editors for *The Talon* are selected from this group.

Title: **JOURNALISM 2-YEARBOOK (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Journalism 1 or AP Language and Composition; application

The yearbook class produces the student yearbook, *Eyrie*. Students plan and design the book; conduct interviews for stories; write and edit features and sports stories; take and crop photographs; sell and design advertising; create pages on InDesign; and market the book to students and staff. Considerable time outside of school hours is **required** to successfully meet publisher's deadlines. Specific guidelines for Journalism 2-Yearbook are available from the advisor.

Title: **JOURNALISM 3-YEARBOOK (Grades 11-12)**

Credit: 1 (Elective)

Prerequisite: Journalism 2-Yearbook and audition

Duties are the same as Journalism 2-Yearbook with the added responsibilities of taking a leadership role, training, and managing new members of the staff. Primary editors for the *Eyrie* are selected from this group to develop ownership in producing the yearbook.

Title: **JOURNALISM 4-YEARBOOK (Grade 12)**

Credit: 1 (Elective)

Prerequisite: Journalism 3-Yearbook and audition

Duties are the same as Journalism 3-Yearbook, with the added responsibilities of taking a leadership role, training, and managing new members of the staff. Primary editors for the *Eyrie* are selected from this group to develop ownership in producing the yearbook.

Title: **JOURNALISM EDITOR'S LAB FOR NEWSPAPER, YEARBOOK, or LITERARY MAGAZINE (Grades 11-12)**

Credit: 1 (Elective)

Prerequisite: Journalism 1 & 2 or Creative Writing 1 & 2

The editors of the yearbook, the newspaper, and the literary magazine may enroll in the appropriate lab course.

Title: **SPEECH (Grades 9-12)**

Credit: .5 (Elective)

Prerequisite: None

This semester course teaches the basic principles of public speaking and group discussion. Students learn how to communicate effectively in a variety of speaking situations and gain confidence in addressing a group. This process includes topic research, speech preparation, delivery techniques, oral interpretations, and listening skills.

English for Speakers of Other Languages



Limited English Proficient (LEP) students (Levels 1-4) will receive ESOL support in some or all of their content area classes based on WIDA scores.

Title: **ESOL 1 ENGLISH CONCEPTS (Grades 9-12)**

Credits: 2 (Elective)

Prerequisite: WIDA Score 1-1.9

This course is designed for students with very little to no prior instruction in English. The focus is on developing skills in the four language domains (reading, writing, listening and speaking) while instructing students using the English 9 Standards. Emphasis is placed on essential academic language, phonetic awareness, and grammar and writing concepts that support progressive language acquisition and development in the content areas.

Title: **ESOL 2 ENGLISH CONCEPTS (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: WIDA Score 2-2.9

This course is a continuation of ESOL 1 English Concepts (EEC1) and is designed for students who have successfully completed EEC1 and know the basics of the English language. It focuses on the four language domains (reading, writing, listening and speaking), and the English 9 Standards. Emphasis is placed on advancing essential academic language and grammar and writing concepts that support progressive language acquisition and development in content areas. The ability to read and respond in English with increased fluency is emphasized in ESOL 2. Students enrolled in ESOL 2 may be co-enrolled in ESOL English 9.

Title: **ESOL LITERACY 1 (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: WIDA Screener

This yearlong course is designed to provide literacy support for beginning ESOL students through explicit instruction of learning strategies, key vocabulary, and concepts to improve literacy in all academic content areas. Students will participate in lessons that focus on reading comprehension and reading strategies that support disciplinary literacy. Students study academic vocabulary, grammar and language structure that support success in the content areas. **This course is taken on a pass/fail basis and will not be calculated into GPA or class rank.**

Title: **ESOL LITERACY 2 (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: WIDA Score 3-4

This yearlong course is designed to provide support to ESOL students (WIDA Levels 3-5) through explicit instruction of learning strategies, key vocabulary, and concepts to improve literacy in all academic areas. Students will participate in lessons that focus on reading comprehension and reading strategies that support disciplinary literacy. Emphasis is on expanding academic vocabulary for specific purposes and instruction to support content area curricula. **This course is taken on a pass/fail basis and will not be calculated into GPA or class rank.**

Title: **ESOL ALGEBRA READINESS (Grades 9-12)**

Credits: 1 (Elective)

Prerequisites: Placement Testing

This foundational course meets every day and is designed to support and promote student success in basic mathematics and pre-Algebra skills necessary to prepare them for high school graduation requirements. Students will add, subtract, multiply, and divide rational numbers, including positive and negative fractions, decimals and integers. Students will solve problems involving a variety of proportional relationships, such as converting between measurement units, finding the percent of increase or decrease of an amount, and solving problems involving similar figures. **Upon successful completion of the course, students will take Algebra 1 Part 1.**



Title: **COMMERCIAL PHOTOGRAPHY 1 (Grades 9-11)**

Credit: 1 (Elective)

See *CTE Offerings - Arts and Humanities*, pg. 10

Title: **COMMERCIAL PHOTOGRAPHY 2 (Grades 10-12)**

Credit: 1 (Elective)

See *CTE Offerings - Arts and Humanities*, pg. 10

Title: **APEX ONLINE ART APPRECIATION (Grades 9-12)**

Credit: .5 (Elective)

Prerequisite: None

Art Appreciation is an **APEX online** course providing students with an alternative option to study art. Students will be responsible for completing units of this self-paced class with the guidance of a qualified teacher at OHS who will oversee their work. The Art Appreciation is a survey course to study painting, sculpture, and architecture. This course is designed to introduce the student to the language of visual art. Art history is also an integral part of the course, and will be studied through the use of online images and readings. The history and art of past and present world cultures is introduced and will be presented sequentially enabling students to understand the ways in which both history and culture have affected visual artists and the ways artists have influenced each other and their societies. Students will learn necessary knowledge, tools, and skills to observe, evaluate, and appreciate the quality and styles of art. The student will understand basic design concepts of both The Elements of Art and The Principles of Design and understand how they are implied in art. The course will explore career opportunities in diverse fields of art.

Title: **FOUNDATION OF ART 1 (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None

This course is the first level of the foundations of art program. This yearlong art course focuses on the Elements of Art. Students learn how to draw using eye development exercises, create 2D projects (drawing, painting, and collage), and 3D projects using clay. Art history is presented by studying artists from various time periods. Students are introduced to a variety of exciting opportunities by using artistic processes, learning to think conceptually, and realizing potential as a creative and critical thinker. Sketches will be required for project brainstorming and/or planning purposes.

Title: **FOUNDATION OF ART 2 (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Foundation of Art 1

This course is the second level of the foundations of art program. This yearlong course introduces students to the Principles of Design and expands on their knowledge of the Elements of Art. Mixed media, conceptual art, and nonrepresentational art will be introduced. Students create thoughtful compositions and begin to develop a personal artistic style. Knowledge of the critique process, using analysis and critical thinking, and use of creativity for problem solving and advanced visual communication are stressed. A sketchbook is maintained for the exploration of various media and techniques. Students are encouraged to provide some project materials.

Title: **ADVANCED ART 1 (Grades 11-12)**

Credit: 1 (Elective)

Prerequisite: Foundation of Art 2

This course is the third level of the foundations of art program. In this yearlong class, students are able to develop sequential works relating to an overall theme of their choice as a first step to assembling an artist's portfolio. Students will actively engage in discussions about integrity and ethics in the art world while they further develop their artistic voice by analyzing historical works and art from different cultures. Students are required to prepare sketches outside of class.

Title: **ADVANCED ART 2 (Grade 12)**

Credit: 1 (Elective)

Prerequisite: Advanced Art 1

This course is the final level of the foundations of art program. This yearlong course is designed for serious art students who wish to pursue in-depth techniques in various media. College and career-ready portfolio preparation is the focus of this class. Students will further develop their artistic style in their work to communicate their individual ideas and responses to personal and global issues. The students will utilize different critiquing methods such as personal, small group, and class-wide evaluations. Outside of class, sketching in a sketchbook is required.

Title: **HONORS ART 9 (Grade 9)**

Credit: 1 (Elective)

Prerequisite: Portfolio Selection and/or GT identification for Art

Students placed in Honors Art 9 must have submitted a portfolio for review and been accepted into this class while attending Metz Middle School. This course is designed to challenge the serious art student to explore creative possibilities beyond the regular art classes. During this yearlong course, students will engage in an advanced study of art processes, aesthetic issues, art criticism, art history and culture while maintaining the self-discipline of a working artist.

Title: **HONORS ART 10 (Grade 10)**

Credit: 1 (Elective)

Prerequisite: Portfolio Selection and/or GT identification for Art

Students place in Honors Art 10 must have submitted a portfolio or collection of work for review. This course is designed to challenge the serious art student to explore creative possibilities beyond the regular art classes. During this yearlong course, students will engage in an advanced study of art processes, aesthetic issues, art criticism, art history and culture while maintaining the self-discipline of a working artist. In this yearlong course, students will continue to develop their own personal art aesthetic and create meaningful, thoughtful, and well-developed work.

Title: **HONORS ART 11 (Grade 11)**

Credit: 1 (Elective)

Prerequisite: Portfolio Selection and/or GT identification for Art

Students placed in Honors Art 11 must submit a portfolio for review. At this point in the HONORS ART sequence, students will prepare to continue onto HONORS ART 12, or begin assembling a portfolio of work to take into AP STUDIO ART. This course is designed to challenge the serious art student to explore creative possibilities beyond the regular art classes. During this yearlong course, students will engage in an advanced study of art processes, aesthetic issues, art criticism, art history and culture while maintaining the self-discipline of a working artist. In this yearlong course, students will continue to develop their own personal art aesthetic and create meaningful, thoughtful, and well-developed work.

Title: **HONORS ART 12 (Grade 12)**

Credit: 1 (Elective)

Prerequisite: Portfolio Selection and/or GT identification for Art

Students placed in Honors Art 12 must submit a portfolio for review. In this yearlong course students continue to develop their own personal art aesthetic and create meaningful, thoughtful, and well-developed work. At this point in the HONORS ART sequence, students continue to assemble a portfolio of work that will be utilized for college or career submission processes.

Title: **AP STUDIO ART (Grade 12)**

Credit: 1 (Elective)

Prerequisite: Portfolio Selection

AP Studio Art is a rigorous course in which students engage in an advanced study of art production, art history, aesthetics, and art criticism while maintaining the attitude and self-discipline of a working artist. Students practice and exhibit technical proficiency and personal style, work in advanced media, and apply professional presentation techniques to develop and prepare artwork for exhibitions and portfolios. **Students are required to submit a digital Portfolio to the College Board that contains 24 pieces**, as well as a written statement by the designated exam date in May. Students will be required to spend time outside of class completing assignments. **Students are expected to remain in their AP classes for the entire school year.**

Title: **CERAMICS (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: none

In this course, students are introduced to basic clay tools and manipulation methods, with a focus on designing and creating hand build clay forms. Students are encouraged to think creatively and three dimensionally. Students will be evaluated through individual projects and their mastery of each basic hand building technique: pinch pot, coil, and slab. Students need to come to every class prepared to work and get messy.

Title: **ADVANCED CERAMICS (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Ceramics

In this course, students are encouraged to expand upon the hand building skills learned in the previous ceramics course. Projects in this class will focus on combining hand-building techniques, encouraging personal expression, and developing more in-depth and complex ideas. Students will also have the opportunity to begin creating clay forms on the pottery wheel. Students need to come to every class prepared to work and get messy.

Title: **DRAWING 1 (Grades 9 -12)**

Credit: 1 (Elective)

Prerequisite: None

This course teaches students how to draw using hand-eye development exercises. Students will be introduced to the fundamentals of drawing, exploring various drawing media and industry standard techniques. Students will be expected to foster creativity, think critically, analyze the work of their peers and explore issues that affect the production and presentation of art. Students will discover, create, and use the Elements of Art and Principles of Design throughout the duration of the course. Additionally, students will complete one project that will introduce them to the Impressionist movement, a transformative movement in the history of art. Creativity exercises and art vocabulary are also an essential part of the Drawing 1 course. Students are encouraged to provide some drawing materials.

Title: **DRAWING 2 (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Drawing 1

This course is offered to students who have successfully learned the fundamentals of drawing and now desire to expand and cultivate their drawing ability in the Drawing 2 class. Students will practice drawing subject matter that is more challenging such textural objects, facial anatomy and portraiture, the figure as it relates to comics or anime, and more. Additionally, students will be introduced to a variety of new drawing media, thus allowing them to find their preferred materials as well as developing a greater capacity to create mixed media artworks. Creativity exercises and art vocabulary are also an essential part of the Drawing 2 course. Outside of class, sketching in a sketchbook is required.

Title: **CRAFTS 1 (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None

This course is designed for students who wish to learn a variety of different crafts. Students develop an appreciation for hand craftsmanship by exploring the various techniques employed by different cultures around the world. Hand-eye coordination skills and focus are improved as students create a multitude of handmade items themselves. For each project, students consider design elements and aesthetic attributes that will improve their piece. Understanding how something is made, and why it is made that way, is more vital to modern life than ever. Students are encouraged to provide some project materials.

Title: **CRAFTS 2 (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Crafts 1

In this course, students expand their knowledge of designing and making handmade projects by integrating the Elements of Art and Principles of Design. Students will further develop an appreciation for hand craftsmanship by exploring a new series of more complex handmade goods. Students are encouraged to provide some project materials for this class.

Title: **PAINTING 1 (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Foundation of Art 1, 2, or Drawing

This course is designed for the art student desiring specific study in painting. Different types of paint, techniques, and materials are explored. Color theory is the focus of this course. The expectations are for students to demonstrate a working knowledge of the Elements of Art and Principles of Design. Students may be required to purchase supplementary materials.

Title: **PAINTING 2 (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Painting 1

In advanced painting, students expand their knowledge of painting media and color theory and begin to work in a larger format. This course is designed for the art student desiring advanced study in painting techniques, color theory, and materials. The expectations are for students to demonstrate an advanced working knowledge of the Elements of Art and Principles of Design, the critique process will be used for analysis and critical thinking, and use of creativity for problem solving, and advanced visual communication. Students may be required to purchase supplementary materials.

Title: **SCULPTURE 1 (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Foundations of Art 1

This course is designed for art students who wish to learn more about constructing three-dimensional artworks. Various materials are utilized including paper, clay, wire, wood, and fabric. Students will create additive and subtractive forms of sculpture, while considering the various types of balance and the elements and principles of art. Students plan and construct three-dimensional artworks while increasing their knowledge of the various properties of sculptural materials. Famous sculptors are introduced so that students may observe real-life application of the artistic process being learned in class. Students are encouraged to provide some project materials.

Title: **SCULPTURE 2 (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Sculpture 1, Foundations of Art 1

In Sculpture 2, students expand their knowledge of producing three-dimensional works of art into larger works of art. This course is designed for art students who wish to advance their skills in three-dimensional works of art. Clay, wire, metal, cardboard, paint, and non-traditional mediums will be used to create three-dimensional artwork. Students will demonstrate an understanding of the Principles of Design and Elements of Art, the critique process, critical thinking and problem solving. Students may be required to purchase supplementary materials.

Title: **THEATRE ARTS 1- BEGINNING (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None

This course is designed for students who are committed to and have an interest in advanced theatre study. Through exposure to contemporary acting techniques of Stanislavski, classical text and theory, students will develop basic performance techniques. Students will also explore basic design in the creation of performance for the public. **This is a performance-based class.**

Title: **THEATRE ARTS 2 - INTERMEDIATE (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Adv Theatre Arts 1 or teacher recommendation

Students will continue the examination of various forms of performance from classical to contemporary. Focus will be on developing acting skill, advanced design, vocal technique, work shopping, and play analysis. Students will perform on a regular basis in class. **This is a performance-based class.**

Title: **THEATRE ARTS 3 - ADVANCED (Grades 11- 12)**

Credit: 1 (Elective)

Prerequisite: Audition and/or teacher recommendation

Forming the core of the theatre department, the students in this class will participate at some level on all productions produced on the mainstage during the season. In addition, they will study playwriting, acting, and design in various areas of theatre, including abstract, absurdism, and musical theatre. Students

must possess an elevated level of dedication toward theatre. **This is a performance-based class.**

Title: **THEATRE ARTS 3 - HONORS (Grades 11- 12)**

Credit: 1 (Elective)

Prerequisite: Audition and/or teacher recommendation

Forming the core of the theatre department, the students in this class will participate at some level on all productions produced on the mainstage during the season. In addition, they will study the teachings of Stanislavski and Uta Hagen. Students must possess an elevated level of dedication toward theatre. **Independent work is required. This is a performance-based class.**

Title: **THEATRE ARTS 4 - ADVANCED (Grade 12)** ★

Credit: 1 (Elective)

Prerequisite: Audition and/or teacher recommendation

Analysis of theatre processes, self-motivation, personal discipline, and demanding projects in directing, design, and writing are emphasized. The acting experience concludes the exploration of the concepts of self, body and voice work, improvisation, acting techniques, reading and writing. Independent work required. Students in this course will be required to participate in the one act show through class work and after school activities, as well as, be present at all competitions. **This is a performance-based class.**

Title: **THEATRE ARTS 4 - HONORS (Grade 12)** ★

Credit: 1 (Elective)

Prerequisite: Audition and/or teacher recommendation

The acting experience in Theatre 4 Honors continues the exploration of the concepts studied in Theatre 4. Students in this course need a solid work ethic, as a fair amount of **independent work is required.** Students in this course will be required to serve as mentors to young actors who are new to theatre. They must participate in after school rehearsals and performances, as well as, be present at all competitions. Students in this course will also be required to submit portfolios for assessment, as well as apply and audition for performing arts universities. **This is a performance-based class.**

Title: **TECHNICAL THEATRE (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Theatre Arts 1

Tech Theatre will introduce the first year technician to the areas of stagecraft and theatrical production. Students will build, paint, climb ladders, and handle power tools in class. Students will be introduced to the following technical topics: theatre safety, stage elements and properties, costumes, make-up, set construction, lights, sound, tools and equipment and scenic painting. Students will also be introduced to the following production topics: Stage Management, Performance Marketing, Directing, Production Management, and Design. Students must participate backstage once per semester. Analysis of the production experience will be intrinsic to the experience of the course.

Title: **CONCERT BAND BRASS (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None; previous Band experience preferred

This course is designed for freshmen and young players who have the desire to learn trumpet, trombone, French horn, baritone, or tuba. Emphasis is placed on musical skill development. Students taking this course will be expected to practice daily and perform at all required performances. Students will also be required to purchase a designated concert uniform.

Title: **HONORS CONCERT BAND BRASS (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Active participation in Marching Band

This course is designed for freshmen and young players who have the desire to learn trumpet, trombone, French horn, baritone, or tuba *and* are in the marching band. Emphasis is placed on musical skill development. Students taking this course will be expected to practice daily and perform at all required performances. As honors students, members will be required to participate in the marching band. Students will also be required to purchase a designated concert uniform.

Title: **CONCERT BAND WOODWINDS (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None; previous Band experience preferred

This course is designed for freshmen and young players who have the desire to learn flute, clarinet, bass clarinet, oboe, saxophone, or bassoon *and* are in the marching band. Emphasis is placed on musical skill development. Students taking this course will be expected to practice daily and perform at all required performances. Students will also be required to purchase a designated concert uniform.

Title: **HONORS CONCERT BAND WOODWINDS (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Active participation in Marching Band

This course is designed for freshmen and young players who have the desire to learn flute, clarinet, bass clarinet, oboe, saxophone, or bassoon *and* are in the marching band. Emphasis is placed on musical skill development. Students taking this course will be expected to practice daily and perform at all required performances. As honors students, members will be required to participate in the marching band. Students will also be required to purchase a designated concert uniform.

Title: **PERCUSSION ENSEMBLE (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None; previous Band experience preferred

This course provides percussion students a focused performing venue that will introduce and provide guided mastery of percussion techniques. This course is designed for students who are prepared for a demanding performance schedule. This class operates as a separate contemporary percussion ensemble as well as a supportive percussion section for the other large concert ensembles. Students will be required to purchase a designated concert uniform as well as a basic set of drumsticks and mallets.

Title: **HONORS PERCUSSION ENSEMBLE (Grade 9-12)**

Credit: 1 (Elective)

Prerequisite: Active participation in Marching Band

This course provides percussion students a focused performing venue that will introduce and provide guided mastery of percussion techniques. Students will be required to participate in the marching band as a member of the honors section of percussion ensemble. The course is designed for students who are prepared for a demanding performance schedule. This class operates as a separate contemporary percussion ensemble as well as a supportive percussion section for the other large concert ensembles. Students will be required to purchase a designated concert uniform as well as a basic set of drumsticks and mallets.

Title: **SYMPHONIC BAND (Grades 9*-12)**

Credit: 1 (Elective)

Prerequisite: Audition or Band Director Recommendation

This course is designed for brass and woodwind student musicians with prior band experience who are prepared for a demanding performance schedule. Continued emphasis is placed on skill development. Students taking this course will be expected to practice daily and attend all after-school rehearsals and performances. Students will be required to purchase a designated concert uniform. *This ensemble is typically reserved for 10th grade and above only, but exceptions may be made for 9th grade students of exceptional skill, or when there are certain instrumental vacancies. *

Title: **HONORS SYMPHONIC BAND (Grades 9*-12)**

Credit: 1 (Elective)

Prerequisite: Active Marching Band participation **and** Audition/Band Director recommendation

This course is designed for brass and woodwind student musicians with prior band experience who are prepared for a demanding performance schedule. Students are required to participate in the marching band. Continued emphasis is placed on skill development. Students taking this course will be expected to practice daily and attend all after-school rehearsals and performances. Students will be required to purchase a designated concert uniform. *This ensemble is typically reserved for 10th grade and above only, exceptions may be made for 9th grade students of exceptional skill, or when there are certain instrumental vacancies. *

Title: **JAZZ BAND (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Audition or Band Director Recommendation

This course is an extension ensemble that focuses on the theory, history and performance of Jazz. This ensemble performs at a large number of venues. Instrumentation for this ensemble includes alto saxophone, tenor saxophone, baritone saxophone, trombone, trumpet, piano, drum set, auxiliary percussion, electric guitar, electric bass, and double bass. Students will be required to purchase the designated concert uniform. *This ensemble is typically reserved for 10th grade and above only, exceptions may be made for 9th grade students of exceptional skill, or when there are certain instrumental vacancies. *

Title: **HONORS JAZZ BAND (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Active Marching Band Participation **and** Audition/Band Director Recommendation

This course is an extension ensemble that focuses on the theory, history and performance of Jazz. This ensemble performs at a large number of venues. Instrumentation for this ensemble includes alto saxophone, tenor saxophone, baritone saxophone, trombone, trumpet, piano, drum set, auxiliary percussion, electric guitar, electric bass, and double bass. Students will be required to purchase the designated concert uniform. Students in this section of Jazz Band are required to participate in the marching band. *This ensemble is typically reserved for 10th grade and above only, exceptions may be made for 9th grade students of exceptional skill, or when there are certain instrumental vacancies. *

Title: **EAGLE ORCHESTRA (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None

Eagle Orchestra is available to any student regardless of the student's musical background. This course is designed for students who want to start playing an orchestral string instrument for the first time, students who used to play and want to continue playing, current string students in need of mastering fundamental technique, and current advanced orchestra students who wish to pursue learning a secondary instrument. This multi-faceted course will cover the basics of the instruments, how to properly care for the instruments, basic fundamental playing technique, and solo and ensemble musicianship. Students will learn core orchestral repertoire while getting the chance to explore various different styles and genres while they master their playing technique. The advanced orchestra students will help mentor students who are new to playing in orchestra.

Title: **CONCERT ORCHESTRA (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Middle School Orchestra Participation

Students will build on their music performance and theory skills as well as broaden their knowledge of the history of western classical music in pursuit of well-rounded musicianship. A strong emphasis is placed on efficient and natural performance technique, intonation, and overall musicianship. Students will be required to rent/purchase certain uniform parts and/or instruments. Mandatory weekly practicing, playing tests, sight-reading, rehearsals, and performances, which include the District IXB Assessment performance, are expected of all students.

Title: **SINFONIA (Grades 9*-12)**

Credit: 1 (Elective)

Prerequisite: Concert Orchestra

Sinfonia students will improve their ability to perform accurately and musically by performing challenging repertoire, that includes shifting. Students will be expected to play in small chamber groups in class as well as perform etudes and solos. Students will be required to rent/purchase certain uniform parts and/or instruments. Mandatory weekly practicing, playing tests, sight-reading, rehearsals, and performances, which include the District IXB Assessment performance, are expected of all students. *This ensemble is typically reserved for 10th graders and above only, but exceptions may be made for 9th grade students of exceptional skill, or when there are certain instrumental vacancies. *

Title: **HONORS CHAMBER ORCHESTRA (Grades 9*-12)**

Credit: 1 (Elective)

Prerequisite: Audition

This orchestra will be the top orchestra ensemble. Students will perform three octave major and minor scales, and in small and large ensembles. Students will be well rounded in musical independence in performing, listening, analyzing, composing, improvising, and applying critical thinking in the music performance idiom. *This ensemble is typically reserved for 11th graders and above only, but exceptions may be made for 9th/10th grade students of exceptional skill, or when there are certain instrumental vacancies. *

Title: **CONCERT CHOIR (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Placement by audition. At least one year experience in high school music class or strong equivalent.

This course is open to men and women who have completed at least one year of choir and have passed the audition requirement for advancement. Concert Choir is for those students who are prepared for a demanding rehearsal and

performance schedule. Students will be required to attend trips and district level auditions. Students will sing and sight read at the highest level. After school rehearsals, performances, and clinics are required. Transportation is not always provided to off-campus, required events. Uniforms, shoes, and t-shirts must be purchased (estimated cost of \$90.00, fundraising available).

Title: **MEN'S CHOIR (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None

This course is for gentlemen in grades 9-12. Students will learn the basics of vocal technique, sight reading, classical literature, and popular men's style singing. After school rehearsals, performances, and clinics are required. Transportation is not always provided to off-campus, required events. Uniforms, shoes, and t-shirts must be purchased (estimated cost of \$90.00, fundraising available).

Title: **ECLIPSE CHOIR (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None

This course is open to all 9th grade ladies. It will consist of proper vocal technique, sight-reading, classical, and popular music. Students will be singing music in 3-4 parts. After school rehearsals, performances, and clinics are required. Transportation is not always provided to off campus, required events. Uniforms, shoes, and t-shirts must be purchased (estimated cost of \$90.00, fundraising available).

Title: **WOMEN'S SELECT CHOIR (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Placement by audition. At least ONE year's experience in high school music class or strong equivalent.

This course is open to ladies who successfully completed one year of Treble Choir and passed the audition requirement for advancement. Students will continue to work on sight-reading, choral singing techniques, classical literature, and a small amount of popular music. Transportation is not always provided to off campus, required events. Uniforms, shoes, and t-shirts must be purchased (estimated cost of \$90.00, fundraising available).

Title: **HONORS CENTERSTAGE (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Placement by audition and interview. At least two years' experience in high school music class or strong equivalent

This course is the highest-level choir with the most stringent repertoire and sight-reading requirements. Students and parents must meet and sign a commitment form. Students will be required to audition for All-District Choir and Senior Honors Choir. As part of the honors component, all trips and performance activities are required as well as after school and Saturday rehearsals. Transportation is not always provided to off campus, required events. Costumes must be rented and shoes must be purchased (estimated annual cost \$500.00 – fundraising available).

Title: **BEGINNING GUITAR (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Interview and personal guitar

Beginner guitar is a course for guitarists with little or no experience. Students will learn open chords, power chords, movable chords, melodic playing, accompaniment techniques, and a variety of playing techniques. Students will learn music fundamentals, music theory, read standard music notation, and some tablature. Participation in concerts is mandatory. Students must own either a nylon or a steel string acoustic guitar. Students are required to purchase a performance t-shirt, approx. \$10.00 Class size of 22 students is the maximum.

Title: **INTERMEDIATE GUITAR (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Placement by audition

Students enrolled in this second year of study will continue to improve their understanding and ability to read and play different staff notations, tablature, chord grids, and chord symbols. Students will also learn to utilize various right hand styles such as flat-picking, pick strumming, finger picking, and finger strumming. A variety of music styles will be used including classical, jazz, rock, reggae, and more. Students should own a full size nylon or steel string guitar. All after school rehearsals, performances, and assessment-based field trips are required. Students will be required to purchase a designated concert uniform, approx. \$30.00.

Title: **ADVANCED GUITAR (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Placement by audition

Students will improve their understanding and ability to read and play different staff notations, tablature, chord grids, chord symbols, and moveable chords. Various right hand styles will be perfected. Students will learn the scale structures necessary for improvisation and will explore different positions on the guitar, most notably second and fifth. Students should own a full size nylon or steel string guitar. All after school rehearsals, performances, and assessment-based field trips are required. Students will be required to purchase a designated concert uniform, approx. \$30.00.

Title: **ADVANCED GUITAR 2 (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Placement by audition

Students in Advanced Guitar 2 will be able to play in multiple playing positions and perform advanced rhythms. Students will also be able to play melodic lines and scales in most major and minor keys. In addition, jazz chords and scales will be used to perform improvisational pieces. Music theory will be explored in depth. Students will compose original pieces of music. Students should own a full size nylon or steel string guitar. All after school rehearsals, performances, and assessment-based field trips are required. Students will be required to purchase a designated concert uniform, approx. \$30.00.

Title: **HONORS ADVANCED GUITAR 3 (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Advanced Guitar 2, placement by audition

Students will demonstrate exercises in multiple meters and keys, in various positions. In addition, they will demonstrate understanding of music theories such as Circle of Fifths/Fourths, chord structures, and rhythm reading in multiple meters and modes. The group will perform a broad repertoire of music such as classical, jazz, modern music, and more. Students are required to purchase a designated concert uniform, approx. \$30.00.

Title: **MUSIC THEORY (Grades 11-12)**

Credit: 1 (Elective)

Prerequisite: 2 years of band, orchestra, or choir, interview with teacher. **Enrollment limited to 15 students with preference given to seniors.**

This course is geared to the serious music student. It will consist of music reading, sight singing, music theory/harmony, and music history. Computerized music keyboards will be utilized in the learning process. Students will learn the fundamentals of music and how they work together to create music.

Title: **PIANO LAB (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None

This course is designed to teach piano to the student who has never had the opportunity to play, but has the desire to learn. This beginner level class provides students the opportunity to explore a fine arts curriculum, earn a fine arts credit, and learn basic music theory and piano skills without the pressure of being in a performance-based class.



Health & Physical Education

Please keep in mind the following restrictions when selecting P.E. courses:

1. **9th grade students may only take the 9th grade required Health and P.E. course.**
2. **10th grade students may only take the 10th grade required Health and P.E. course.**
3. **11th and 12th grade students may take no more than two (2) P.E. courses per year.**
4. **Students are to follow the sequential options rule. If it is the first time in the elective class, students must choose the elective followed by a 1. If students take a second year in that elective class, choose the elective followed by a 2. If students are taking the same elective for a third year, choose the elective followed by a 3, if it is offered.**
5. **All students must remain in good standing to continue in the elective programs. The department supervisors determine this standing.**

Title: **HEALTH AND PHYSICAL EDUCATION 9 (Grade 9)**

Credit: 1

Prerequisite: None

PE 9 is a required combined course consisting of health and Physical Education. By participating in a variety of physical challenges, lifetime sports, and individual activities, students learn the health benefits of maintaining physical fitness. All students are pre and post tested in the Presidential Physical Fitness test. Sports included in the PE 9 curriculum are football, volleyball, badminton, team handball, games unit, and tennis. Health instruction works in tandem with the goals of the Physical Education program providing information on nutrition, life skills training, injury prevention, CPR and first aid, Family Life Education, and personal fitness.

Title: **HEALTH AND PHYSICAL EDUCATION 10/DRIVER EDUCATION (Grade 10)**

Credit: 1

Prerequisite: HPE 9

PE10 is a required course for graduation. During first semester, thirty-six hours of classroom instruction in Driver Education meets the state requirement for students who wish to pursue a Virginia Driver's license. PE 10 emphasizes a more focused approach to the following sport activities of football, volleyball, badminton, basketball, tennis, and personal fitness. Students are again tested on the Presidential Fitness test which will help them to determine their personal fitness level during their 9th and 10th grade years. Some health education concepts are integrated into physical activities, while topics, such as mental and emotional health, consumer health, Family Life Education, and environmental health are part of the classroom experience.

Road and range is available at a fee of \$175.00 per student. All students who plan to register for the in car instruction must have obtained their learner's permit and a certificate that indicates that they and a guardian have attended the Safe Teen Driving presentation required by the state of Virginia. This is a free 90-minute program offered by the high school four times during the school year.

Title: AEROBICS 1 (Grades 11-12)

Credit: 1 (Elective)

Prerequisite: HPE 9 and 10

The Aerobics 1 Class is a rigorous interval training sequence with high-intensity exercises. It builds cardiovascular fitness while improving muscular strength and endurance. The class features aerobic/fitness interval training with a combination of total body strength workout. The class allows each individual to start at their base and increase their strength and aerobic endurance throughout the year.

Title: AEROBICS 2 (Grades 11-12)

Credit: 1 (Elective)

Prerequisite: Aerobics 1

Aerobics 2 will provide students an opportunity to continue to engage in a HIIT program. Students will build upon their base knowledge of skills. Aerobics 2 will improve on their endurance, strength, and flexibility. Students will assess and maintain personal fitness logs or apps. They will also begin to monitor their heartrate to increase performance. As they work on their fitness, students additionally will place emphasis on their diet and nutrition.

Title: AEROBICS 3 (Grade 12)

Credit: 1 (Elective)

Prerequisite: Aerobics 2

Students will continue to increase their cardiovascular and muscular endurance through HIIT training in our Aerobics 3. The class will be a total body workout building upon prior skills gained from levels 1 and 2. Students will begin building their own programs to follow. These routines will be student led and evaluated by the teacher.

Title: ADVANCED PHYSICAL EDUCATION 1 (Grades 11-12)

Credit: 1 (Elective)

Prerequisite: HPE 9 & HPE 10

This elective course is for students who have an interest in maintaining overall fitness for life. Students have the opportunity to develop an advanced level of proficiency in the following areas: personal fitness and conditioning, and outdoor recreational activities and sports. Indoor fitness and conditioning will be conducted both indoors and outdoors including, but not limited to, agility, strength, skill technique and endurance fitness goals. The team aspect will include outdoor cooperative games and outdoor sports.

Title: ADVANCED PHYSICAL EDUCATION 2 (Grade 12)

Credit: 1 (Elective)

Prerequisite: Advanced PE 1

Advanced Physical Education 2 places emphasis on why exercise and fitness are important; what one's own fitness needs are; and how to attain and maintain personal fitness for a lifetime. Individual student fitness levels are assessed and students will participate in individual and team sports throughout this course to help improve a student's personal fitness. Additional emphasis is placed on the five health-related components of fitness including cardiovascular fitness, muscular strength and endurance, flexibility, and body fat control. Instruction includes emphasis on health risk factors related to lifestyles and how nutrition affects wellness.

Title: BASKETBALL 1 (Grades 11-12)

Credit: 1 (Elective)

Prerequisite: HPE 9 and 10

This course provides opportunities for students to expand their interest and knowledge about the game of basketball. The program includes explanation of rules, fundamental skills, and offensive strategies, as well as, defensive fundamentals and tournament play.

Title: BASKETBALL 2 (Grades 11-12)

Credit: 1 (Elective)

Prerequisite: Basketball 1

This course is designed to provide advanced opportunities for students to expand the knowledge about the game of basketball. The program will broaden knowledge of basketball rules and skills. This program will continue to work on offensive skills and defensive strategies. Fundamental rules of officiating will be introduced. Intense instruction concerning the coaching aspect of the game will be investigated. Students will also learn how to organize all types of tournaments.

Title: SOCCER 1 (Grades 11-12)

Credit: 1 (Elective)

Prerequisite: HPE 9 and 10

This course covers instruction in basic fundamental soccer essentials for team play. The course will include development in dribbling, passing, receiving, heading, shooting and throw-ins. These skills will be combined with conditioning activities to prepare for the physical demands of team sports and practiced through team play. Proper terminology and rules will be taught to develop a thorough understanding of soccer. Tests will be given to evaluate basic skills and knowledge through written exams and demonstrations.

Title: SOCCER 2 (Grades 11-12)

Credit: 1 (Elective)

Prerequisite: Soccer 1

This course will review and continue to develop the skills and knowledge learned in Soccer 1. In addition, more complex skills will be introduced and applied through more competitive play. Game tactics are emphasized that require advanced skills, conditioning and knowledge. Students will be given proficiency tests based on skill as well as their knowledge of the tactical aspects of soccer through written exams and demonstrations.

Title: WEIGHT TRAINING/CONDITIONING 1 (Grades 11-12)

Credit: 1 (Elective)

Prerequisite: HPE 9 and 10

Students will study human anatomy, physiology, kinesiology, nutrition, and their relationship and application to conditioning and weight training. Students will also participate in and develop beginning weight training fundamental techniques on specific lifts for each muscle group.

Title: WEIGHT TRAINING/CONDITIONING 2 (Grades 11-12)

Credit: 1 (Elective)

Prerequisite: Weight Training/Conditioning 1

Students will assess individual fitness needs and goals and maintain a personal fitness program at the advanced level. Students will build upon basic skills and lifting techniques learned in Weight Training/Conditioning 1. Additional emphasis will be placed in pursuing athletics at the college level. Students will learn about the NCAA clearinghouse process and other college preparatory information.

Title: **WEIGHT TRAINING/CONDITIONING 3 (Grade 12)**

Credit: 1 (Elective)

Prerequisite: Weight Training/Conditioning 2

Students will continue to increase and build upon their muscular strength and endurance using advanced individualized workout routines. Emphasis will be placed on increasing awareness and performing multiple lifting routines and improving speed, agility, strength, and explosive Olympic power lifts. Students will plan and implement workout routines which will be student led and evaluated by the teacher. Students will also be exposed to and investigate fields of study in Kinesiology in preparation for pursuing that area of study at the college and or professional level.



HONORS AND AP CLASSES MAY REQUIRE SUMMER ASSIGNMENTS.

The web-based graphing calculator provided by Desmos.com is the approved graphing calculator application to be used on the Algebra 1, Geometry, and Algebra 2 Standards of Learning assessments. Students are encouraged to use this application at home and in class to become familiar with the available tools.

Title: **PRE-ALGEBRA (Grade 9)**

Credit: 1 (Elective)

Prerequisite: Failed 8th grade Math and scored below a 375 on the 8th grade Math SOL

This course, which meets every day, utilizes the pre-algebra standards to continue to emphasize the foundations of Algebra 1. Students who successfully complete the pre-algebra standards should be prepared to study Algebra 1. Students are encouraged to correctly use the concepts, skills, symbols, and vocabulary identified in the standards. The following topics will be explored: number sense, expressions and equations, ratios and proportions, and functions and their graphs.

Title: **ALGEBRA PART 1/ALGEBRA PART 2 (Grades 9-12)**

Credit: 1 (Elective) and 1(Math) when student passes both parts

Prerequisite: Grade of 74 or below in Math 8 and scored between a 375-399 on the Math 8 SOL

This two-part course, which meets every day, is designed to support and promote student success in mathematics coursework necessary to fulfill high school graduation requirements. The Algebra 1 SOL test will be given at the end of Algebra 1 Part 2. While strengthening prerequisite basic math skills used in Algebra, students will solidify algebraic concepts through modeling, the use of manipulatives, and computer software where appropriate. The focus of the course will be improving problem solving skills, thorough foundation in algebraic concepts, including algebraic operations, factoring, solving equations and inequalities, graphing linear and quadratic functions, evaluating functions, and statistics; coupled with an emphasis on test preparation and building mathematical confidence. The student will receive one elective credit upon passing first semester (Algebra 1 Part 1) and one math credit upon successful completion of the second semester (Algebra 1 Part 2). Note: Students with disabilities eligible for credit accommodations receive two math credits for completing both courses.

Title: **ALGEBRA 1 (Grades 9-12)**

Credit: 1

Prerequisite: Math grade of 75 or higher in 8th grade Math and passed the 8th grade Math SOL with a score of 400-475

Students will solidify algebraic concepts through modeling, the use of manipulatives, and computer software where appropriate. The focus of the course will be on improving problem solving and building skills thorough foundation in algebraic concepts. Topics will include algebraic operations, factoring, solving equations and inequalities, graphing linear and quadratic functions, evaluating functions, and statistics. Students will take the Algebra 1 SOL at the end of the course.

Title: **HONORS ALGEBRA 1 (Grade 9)**

Credit: 1

Prerequisite: Math grade of 85 or higher, Passed Math SOL with a score of 475 or above

This course is designed for advanced students who are capable of a more rigorous course at an accelerated pace. Students will solidify algebraic concepts through modeling, the use of manipulatives, and computer software where appropriate. The focus of the course will be on improving problem solving skills and building a thorough foundation in algebraic concepts. Topics will include algebraic operations, factoring, solving equations and inequalities, graphing linear and quadratic functions, evaluating functions, and statistics. Students will take the Algebra 1 SOL at the end of the course.

Title: **GEOMETRY PART 1/GEOMETRY PART 2 (Grades 9-12)**

Credit: 1 (Elective) and 1(Math) when student passes both Geometry parts

Prerequisite: Algebra 1, or Algebra 1 Parts 1 & 2 with grade of 74 or lower

The two-part course, which meets every day, is designed to support and promote student success in mathematics coursework necessary to fulfill high school graduation requirements. The Geometry SOL test will be given at the end of Geometry Part 2. The course includes, among other things, properties of geometric figures, trigonometric relationships, and reasoning to justify conclusions. The course includes emphasis on two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. A variety of applications and some general problem-solving techniques, including algebra skills, will be used. The student will receive one elective credit upon passing first semester (Geometry Part 1) and one math credit upon successful completion of the second semester (Geometry Part 2). Note: Student with disabilities eligible for credit accommodations may receive two math credits for completing both courses. If they have taken parts 1 and 2 of Algebra 1, they would receive 3 math credits and one elective credit for the four parts of the two courses.

Title: **GEOMETRY (Grades 9-10)**

Credit: 1

Prerequisite: Algebra or Algebra Parts 1 & 2 with grade of 75 or higher and Passed Algebra SOL

This course includes, among other things, properties of geometric figures, trigonometric relationships, and reasoning to justify conclusions. The course includes an emphasis on two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. A variety of applications and some general problem-solving techniques, including algebra skills, will be used. Students will take the Geometry SOL at the end of the course.

Title: **HONORS GEOMETRY (Grades 9-10)**

Credit: 1

Prerequisite: Algebra 1 grade of 85 or higher, Passed Algebra SOL with a 475 or higher

This rigorous course will provide a strong foundation in the essentials of Euclidean geometry. It is designed for students, who are highly motivated, excel in, and enjoy mathematics. Students enrolling in Honors Geometry should have demonstrated high ability in Algebra 1 the previous year. The course includes, among other things, properties of geometric figures, trigonometric relationships, reasoning to justify conclusions, an emphasis on two-and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. Students will learn geometry concepts and apply them to real world situations, while maintaining their algebra skills. The use of logic and reasoning to model and solve problems based on real world situations are stressed. It is highly recommended that each student have his/her own graphing calculator (TI-83+ or TI-84). Students will take the Geometry SOL at the end of the course.

Title: **ALGEBRA, FUNCTIONS, AND DATA ANALYSIS (AFDA) (Grades 10-12)**

Credit: 1

Prerequisite: Algebra 1 and Geometry with a grade of 74 or lower

This course is designed to strengthen skills needed in order to be successful in Algebra 2. With 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. Through the investigation of mathematical models and interpretation/analysis of data from real life situations, students will strengthen conceptual understandings in mathematics and further develop connections between Algebra and statistics. Note: A student may not receive credit for this course after receiving credit for Algebra 2.

Title: **ALGEBRA 2 (Grades 9-12)**

Credit: 1

Prerequisite: Algebra 1 and Geometry with a grade of 75 or higher, Passed Algebra 1 SOL (Students with a grade below 75 in Algebra and Geometry should enroll in AFDA before taking Algebra 2.

Students enrolled in Algebra 2 are to have mastered those concepts outlined in the Algebra 1 standards. All students preparing for postsecondary and advanced technical studies are expected to achieve the Algebra 2 standards. A thorough treatment of advanced algebraic concepts will be provided through the study of functions, equations, inequalities, systems of equations and inequalities, polynomials, rational and radical equations, complex numbers, sequences and series, and statistics. Emphasis will be placed on practical applications and modeling throughout the course of study. It prepares the student for the Algebra portion of the SAT Graphing calculators, computers, or other appropriate technology tools will be used to assist in teaching and learning. It is highly recommended that each student have his/her own graphing calculator (TI-83+ or TI-84). Students will take the Algebra 2 SOL at the end of the course.

Title: **HONORS ALGEBRA 2/TRIG (Grades 9-11)**

Credit: 1

Prerequisite: Algebra 1 and Geometry with a grade of 85 or higher and passed the Algebra 1 SOL

This course is designed for advanced students who are capable of a more rigorous course at an accelerated pace. The standards for this course provide the foundation for students to pursue a sequence of advanced mathematical studies from Pre-Calculus (Math Analysis) to Advanced Placement Calculus.

These standards include a thorough treatment of advanced algebraic concepts that will be provided through the study of functions, families of functions, equations, inequalities, systems of equations and inequalities, polynomials, rational and radical equations, complex numbers, sequences and series, and statistics. Graphing calculators, computers, or other appropriate technology tools will be used to assist in teaching and learning. It is highly recommended that each student have his/her own graphing calculator (TI-83+ or TI-84). Students will take the Algebra 2 SOL at the end of the course.

Title: **ALGEBRA 3/TRIG (Grades 10-12)**

Credit: 1

Prerequisite: Algebra 2

Algebra 3 with Trigonometry is designed as an extension of Algebra 2 taken prior to Pre-Calculus. In Algebra 3, students elaborate and expand on earlier algebraic concepts and skills. The first semester of this course will develop a more thorough understanding of advanced Algebra 2 topics in preparation for Pre-Calculus. The second semester will cover all components/topics of Trigonometry.

Students in Algebra 3/Trig will be challenged to increase their understanding of algebraic, graphical, and numerical methods to analyze, translate, and solve quadratic, polynomial, rational, exponential and logarithmic functions to solve problems. Additional topics will include complex numbers; radical and rational equations; linear and quadratic inequalities; absolute value equations and inequalities. The Trigonometry component of the course will include right triangle trigonometry, the Unit Circle (in radians and degrees), graphing all six trig functions (period, amplitude and shifts), verifying trigonometric identities, and Law of Sines and Cosines. Successful completion of Algebra 3/Trig will provide the engaged student with an excellent foundation for and introduction to Pre-Calculus.

Title: **HONORS PRE-CALCULUS (Math Analysis) (Grades 10-12)**

Credit: 1

Prerequisite: Honors Algebra 2 with a grade of 70 or above, or Algebra 3/Trig with a grade of 80 or above

This course develops students' understanding of algebraic and transcendental functions, parametric and polar equations, sequences and series, vectors, matrices and mathematical induction. The content of this course serves as appropriate preparation for the AP Calculus AB course. It is highly recommended that each student have his/her own graphing calculator (TI-83+ or TI-84).

Title: **HONORS CALCULUS 1 (Grades 11-12)**

Credit: 1

Prerequisite: Pre-Calculus with a grade of 70 or better

This honors course is designed for the college-bound student. It introduces the fundamental concepts of differential calculus including applications and introduces integral calculus. Honor level classes may require a summer assignment. It is highly recommended that each student have his/her own graphing calculator (TI-83+ or TI-84).

Title: **AP CALCULUS AB (Grades 11-12)**

Credit: 1

Prerequisite: Pre-Calculus with a grade of 80 or better and Teacher Recommendation

This course is designed for the college-bound student with high math ability. It emphasizes the fundamental concepts of differential and integral calculus of the following functions including algebraic, trigonometric, logarithmic, exponential, and inverse trigonometric. Applications in both differentiation and integration will be included. It adheres to the AP Calculus (AB) CollegeBoard guidelines and prepares the student for the AP Calculus (AB) exam. **Students are expected to remain in their**

AP classes for the entire school year. It is highly recommended that each student have his/her own graphing calculator (TI-83+ or TI-84).

Title: **AP CALCULUS BC ONLINE (Grades 11-12)**

Credit: 1

Prerequisite: AP Calculus AB and Teacher Recommendation

Calculus BC is an extension of Calculus AB. Calculus BC is an online, full-year course in the calculus of functions of single variable. It includes all topics taught in Calculus AB plus additional topics such as polar, parametric, sequences and series. Like AB, this course is designed for the college-bound student with high math ability. It emphasizes the fundamental concepts of differential and integral calculus of the following functions including algebraic, trigonometric, logarithmic, exponential, and inverse trigonometric. Applications in both differentiation and integration will be included. It adheres to the AP Calculus (BC) College Board guidelines and prepares the student for the AP Calculus (BC) exam. **Students are expected to remain in their AP classes for the entire school year.** It is highly recommended that each student have his/her own graphing calculator (TI-83+ or TI-84).

Title: **AP STATISTICS (Grades 11-12)**

Credit: 1

Prerequisite: Honors Algebra 2 or Pre-Calculus or a grade of 90 or higher in Probability and Statistics.

This course may be taken concurrently with Calculus. AP Statistics will introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will be exposed to exploring data, planning a study, anticipating patterns, and applying statistical inferences. Students enrolled in this course are expected to take the AP exam in May and may require a summer assignment. Students are expected to remain in their AP classes for the entire school year. It is highly recommended that each student have his/her own graphing calculator (TI-84).

Title: **PROBABILITY AND STATISTICS (Grades 10-12)**

Credit: 1

Prerequisite: Algebra 2

This is a year-long introduction course designed for the college-bound student. Students will be presented with basic concepts and techniques for collecting and analyzing data, drawing conclusions, and making predictions. Students who successfully complete this course will be able to take AP Statistics the following year.

Title: **COMPUTER MATH**

Credit: 1 (Elective)

Prerequisite: Algebra 1

JAVA is the primary computer language learned in this course. The student will apply programming techniques and skills to solve practical problems in mathematics arising from consumer, business, and other applications in mathematics. This course is aligned to the Standards of Learning for Computer Math that has been set by VDOE. Note: Computer Math may count as their third math course for graduation in addition to Algebra and Geometry, only if the student also completes a career and technical concentration.



HONORS AND AP CLASSES MA REQUIRE SUMMER ASSIGNMENTS.

Title: **BIOLOGY (Grades 9-12)**

Credit: 1

Prerequisite: Earth Science Preferred

This course covers topics over eight units; they include scientific investigation, ecology, biochemistry, cellular structures, cellular processes, DNA, DNA technologies, and genetics, classification, and evolution/natural selection. Collaboration is part of the learning process, for example, in lab work, projects, or presentations. Students will demonstrate mastery of the following skills by the end of this course: acquiring, manipulating, and analyzing data, communicating and sharing results, designing experiments, demonstrating mathematical problem-solving skills, and using technology. Students will demonstrate writing through formal lab reports, papers, and presentations. Students enrolled in this course may participate in animal dissection. Students who decline to participate will be offered alternatives to dissection. A student's objection to participating in an animal dissection should be substantiated by a signed note from his or her parent or legal guardian.

Title: **HONORS BIOLOGY (Grades 9-10)**

Credit: 1

Prerequisite: Honors Earth Science preferred and concurrent enrollment in Geometry or higher math.

This course covers topics over eight units; they include scientific investigation, ecology, biochemistry, cellular structures, cellular processes, DNA, DNA technologies, and genetics, classification, and evolution/natural selection. Collaboration is part of the learning process; for example, in lab work, projects, or presentations. Students will demonstrate mastery of the following skills by the end of this course: acquiring, manipulating, and analyzing data, communicating and sharing results, designing experiments, demonstrating mathematical problem-solving skills, and using technology. Students will demonstrate writing through formal lab reports, papers, and presentations. Students will be required to participate in a long-term group project. Students enrolled in this course may participate in animal dissection. Students who decline to participate will be offered alternatives to dissection. A student's objection to participating in an animal dissection should be substantiated by a signed note from his or her parent or legal guardian. **Students may be required to complete a summer assignment.**

Title: **AP BIOLOGY (Grades 11-12)**

Credit: 1

Prerequisite: Biology and Chemistry. A minimum grade of "B" is recommended in both Biology and Chemistry.

The AP Biology course is designed to be the equivalent of a two-semester college introductory biology course usually taken by biology majors during their first year. Students who take AP Biology will develop advanced inquiry and reasoning skills, such as designing a plan for collecting data, analyzing data, applying mathematical routines, and connecting concepts in and across domains. The key concepts and related content are organized around a few underlying principles called the big ideas, which encompass the core scientific principles, theories, and processes governing living organisms and biological systems. The big ideas are: The process of evolution drives the diversity and unity of life; biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain

dynamic homeostasis; living systems store, retrieve, transmit, and respond to information essential to life processes; biological systems interact, and these systems and their interactions possess complex properties. Students enrolled in AP Biology are expected to take the AP exam. Students enrolled in this course may participate in animal dissection. Students who decline to participate will be offered alternatives to dissection. A student's objection to participating in an animal dissection should be substantiated by a signed note from his or her parent or legal guardian. **Students may be required to complete a summer assignment.**

Title: **CHEMISTRY (Grades 11-12)**

Credit: 1

Prerequisite: Successful completion or a minimum grade of "C" or better is recommended. Concurrent enrollment in AFDA or Algebra 2 or higher.

Chemistry emphasizes the qualitative and quantitative study of substances and the changes that occur in them. Students will investigate using various lab techniques and apply mathematical skills with the use of chemical quantities in problem solving. A survey of concepts includes atomic structure, chemical bonding, formulas and equations, stoichiometry, and other calculations based on molar relationships, phases of matter and the kinetic theory, acid-base theory. This course is intended for college preparatory and general education purposes. Students are required to take the Chemistry Standards of Learning assessment at the end of this course. Chemistry is designed as a challenging course requiring advanced reading, writing and problem solving skills.

Title: **HONORS CHEMISTRY (Grades 11-12)**

Credit: 1

Prerequisite: Successful completion of a laboratory science, Algebra 1, and Geometry. A minimum grade of "C" or better is recommended. Concurrent enrollment in Algebra 2 or higher.

Honors Chemistry is designed as an introductory course for college bound students with a strong interest in science. The course will require strong problem solving and critical thinking skills and will prepare the student for future AP Science courses. Chemistry emphasizes the qualitative and quantitative study of substances and the changes that occur in them. Students will investigate using various lab techniques and apply mathematical skills with the use of chemical quantities in problem solving. A survey of concepts includes atomic structure, chemical bonding, formulas and equations, stoichiometry, and other calculations based on molar relationships, phases of matter and the kinetic theory, acid-base theory. Students are required to take the Chemistry Standards of Learning assessment at the end of this course. Students will be expected to complete formal lab reports.

Title: **AP CHEMISTRY (Grades 11-12)**

Credit: 1

Prerequisite: Chemistry, Biology and Algebra 2/Trig with grades of "B" or better in all Honors science and math courses. Teacher recommendation

The AP Chemistry course is designed to be a second year chemistry course that is the equivalent of two semesters of college general chemistry taken by science majors. It conforms to the AP Chemistry guidelines and will prepare the students to complete the AP Chemistry Test. Topics include atomic structure and theory, chemical bonding, states of matter, chemical reactions, stoichiometry, equilibrium, kinetics, thermodynamics, and descriptive chemistry. Problem solving and mathematical manipulation of chemical quantities is stressed throughout the course so a strong background in mathematics is required. Most of the topics will involve laboratory experiments and will be documented in formal and informal lab write-ups that must be kept by the student in a lab

journal that shows all experimentation. Students enrolled in AP Chemistry are expected to take the AP exam. **Students may be required to complete a summer assignment.**

Title: **EARTH SCIENCE (Grades 9-12)**

Credit: 1

Prerequisite: None

Earth Science includes the study of four major disciplines: astronomy, geology, meteorology, and oceanography. This course covers over ten units focusing on the investigation of Earth. They include the following topics: Earth based systems, scientific inquiry and investigative processing skills, modeling the Earth, rocks and minerals, natural resources and Earth's environment, plate tectonics (including earthquakes, mountain building and volcanic processes), weathering and erosion, fossils and geologic time, surface water, groundwater, atmospheric science and meteorology, oceanography, and astronomy. In this course, students will participate in a lab-based course focusing on collaboration, data collection, correlation, analysis, and observation. The following skills will be emphasized: problem solving and critical thinking skills, communication of scientific concepts in written and verbal forms, and analysis, discussion, interpretation and recordation of scientific data.

Title: **HONORS EARTH SCIENCE (Grades 9-12)**

Credit: 1

Prerequisite: Honors Physical Science

Earth Science includes the study of four major disciplines: astronomy, geology, meteorology, and oceanography. This course covers over ten units focusing on the investigation of Earth. They include the following topics: Earth based systems, scientific inquiry and investigative processing skills, modeling the Earth, rocks and minerals, natural resources and Earth's environment, plate tectonics (including earthquakes, mountain building and volcanic processes), weathering and erosion, fossils and geologic time, surface water, groundwater, atmospheric science and meteorology, oceanography, and astronomy. In this course, students will participate in a lab-based course focusing on collaboration, data collection, correlation, analysis, observation, and use of mathematical analysis. The following skills will be emphasized: problem solving and critical thinking skills, communication of scientific concepts in written and verbal forms, and analysis, discussion, interpretation and recordation of scientific data. This course entails a rigorous approach to the study of Earth Science and will move at an accelerated pace involving higher level thinking skills. A lecture/lab approach along with independent research based on the collection and interpretation of data will be utilized; emphasis will be placed on problem solving and decision-making. Students will design experiments, demonstrate mathematical problem-solving skills, use technology, and demonstrate writing through formal lab reports, papers and presentations.

Title: **INTRO TO THE ENVIRONMENT (Grades 9-12)** ★

Credit: 1 (Earth Science or Biology)

Prerequisite: Placement is based upon a body of evidence to include WIDA/W-APT scores, SOL Scores, and teacher input.

This course integrates the study of many components of our environment, including the human impact on our planet. This course will focus on scientific inquiry, the physical world, the living environment, resource conservation, humans' impact on the environment, and legal and civic responsibility. Instruction will focus on student data collection and analysis through laboratory experiences and fieldwork. Upon completion of the course, students will be eligible to take either biology or earth science.

Title: AP ENVIRONMENTAL SCIENCE (Grades 10-12)

Credit: 1

Prerequisite: Biology, Chemistry, and Algebra 1. Completion of a course in Earth Science is desirable. Sophomores who have successfully completed Honors Biology and are concurrently enrolled in Chemistry may take this course.

This course is the equivalent of an introductory college course in environmental science. The course goal is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. AP guidelines are followed so students will be prepared for the AP exam. Students enrolled in AP Environmental Science are expected to take the AP exam. **Students may be required to complete a summer assignment.**

Title: HUMAN ANATOMY AND PHYSIOLOGY (Grades 11-12)

Credit: 1

Prerequisites: Successful completion of Biology and concurrent Chemistry

Human Anatomy and Physiology provides students with an in-depth understanding and working knowledge of the human body, including cells, tissues, integument, skeletal, muscular, and nervous systems, and sense organs. This is a rigorous course designed for students with a high interest in the biological systems of humans and/or those who may wish to pursue further education in an allied health career. It covers the ten systems of the human body with emphasis on the mechanisms that maintain homeostasis. Lab activities cover both the physiological and anatomical aspects of human biology. If dissections are part of the laboratory experience, alternatives are available.

**Title: INTEGRATED MATH AND SCIENCE 3 (Grade 9)
Honors Biology, Honors Chemistry, Honors Algebra 2**

Credits: 2

Prerequisite: Honors Earth Science, Honors Geometry, and Honors Algebra

This course continues the accelerated integrated math and science option that began in 2008 at Metz. Students must have participated in IMS1 and IMS 2 at Metz to register for IMS 3.

This course will promote the integration of conceptually based, complex mathematics and science knowledge and skills. It provides a thorough foundation in higher-level algebraic concepts and will be prepared to take the end of course test in Algebra 2 at the end of this course. The biology component will use inquiry-based approaches to teaching standards based biological science. Critical thinking and problem solving skills will be used to develop a conceptual understanding of the eight units that include scientific investigation, ecology, biochemistry, cellular structures/processes, DNA/DNA technologies, genetics, classification, and evolution/natural selection. Chemistry emphasizes the qualitative and quantitative study of substances and the changes that occur in them. A survey of concepts includes atomic structure, chemical bonding, formulas and equations, stoichiometry, and other calculations based on molar relationships, phases of matter and the kinetic theory, and acid-base theory. Students will investigate using various lab techniques and apply mathematical skills with the use of chemical quantities in problem solving. Collaboration is part of the learning process; for example, in lab work, projects, or presentations. Students will demonstrate mastery of the following skills by the end of this course: acquiring, manipulating, and analyzing data, communicating and sharing results, designing experiments, demonstrating mathematical

problem-solving skills, and using technology. Students will demonstrate writing through formal lab reports, papers, and presentations. Students will be required to participate in the "Internet Science and Technology Fair" and conduct independent research to be entered in the Osbourn Science Fair which is affiliated with the INTEL International Science and Engineering Fair. Students will have completed the SOLs for Biology and Chemistry and will be prepared to take the end of course test at the end of this course. Enrollment in IMS Biology, IMS Chemistry and IMS Algebra 2 are required.

**Title: INTEGRATED MATH AND SCIENCE 4 (Grade 10)
Physics, Pre-Calculus**

Credits: 3

Prerequisite: Honors Earth Science, Honors Geometry, and Algebra 1, Honors Algebra 2/Trig

This course provides a general background in physics. Emphasis is on a qualitative understanding of the classical principles of force and motion, energy and momentum, heat and energy, electricity and magnetism, optics and light, and atoms and matter. Problem solving skills and laboratory are emphasized. Students will employ thematic units of study that use problem-solving and inquiry-based learning models. Students will have completed the standards for Physics 1 The math portion develops students' understanding of algebraic and transcendental functions, parametric and polar equations, sequences and series, and vectors. Enrollment in IMS Physics I and IMS Pre-Calculus is required.

Title: FORENSIC SCIENCE (Grades 11-12)

Credit: 1 (Elective)

Prerequisite: Biology, Chemistry or concurrent enrollment in Chemistry

Students will work on teams to solve crimes using scientific knowledge and reasoning. Various areas of science will be utilized (biology, anatomy, chemistry, physics, and earth science) with an emphasis on complex reasoning and critical thinking. Students will incorporate the use of technology, communication skills, language arts, art, family and consumer science, mathematics, and social studies. Students enrolled in this course may participate in animal dissection. Students who decline to participate will be offered alternatives to dissection. A student's objection to participating in an animal dissection should be substantiated by a signed note from his or her parent or legal guardian.

Title: GENETICS AND BIOTECHNOLOGY (Grades 11-12)

Credit: 1 (Elective)

Prerequisite: Completion of Biology with a grade of 80 or better and completion of or concurrently enrolled in Chemistry

Genetics is the transmission of genetic information through DNA, while biotechnology is the application of DNA techniques through biomedical tests, and genetic modification. This course is recommended for all students who desire to pursue a career within the biomedical sciences with a focus on molecular biology and recombinant DNA technology-the cutting, isolating, and splicing of DNA. History, research techniques and applications are explored in this course. A heavy emphasis is placed on active student participation in group discussion, laboratory investigation, scientific research, problem solving, and the development of critical thinking skills.

Title: **OCEANOGRAPHY (Grades 11-12)**

Credit: 1

Prerequisites: Earth Science

This course is the equivalent of an introductory college course in oceanography. The course is unique in that it integrates the sciences (Chemistry, Earth Science, Mathematics, and Physics) and the social sciences (Government, Law, and Political Science) in an interdisciplinary science format; presenting them as a single area of study. Emphasis will be placed on developing analytical, investigative, processing, and laboratory skills, and will include data collection, analysis, evaluation and synthesis of information, and oral and written communication of experimental results. In addition to lab work, students will investigate current published scientific studies relevant to oceanography topics through journaling. This course covers multiple units: ocean literacy, ocean exploration and navigation, tools of the trade, law of the sea, origin of the ocean, geography, plate tectonics and ocean basins, marine sediments and natural resources, physical properties of water, chemical properties of water, circulation of the ocean and atmosphere, waves, tides, coastal environments, marine productivity, marine environmental issues, sustainability, marine organisms, and oceans, and human health. Students enrolled in this course may participate in animal dissection. Students who decline to participate will be offered alternatives to dissection. A student's objection to participating in an animal dissection should be substantiated by a signed note from his or her parent or legal guardian.

Title: **SEAPERCH (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Minimum grade of 70 or better in previous math and science courses

SeaPerch is an innovative underwater robotics program that equips students with the resources they need to build an underwater Remotely Operated Vehicle (ROV) in an in-school setting. Students will build the ROV from a kit comprised of low-cost, easily accessible parts, following a curriculum that teaches basic engineering and science concepts with a marine engineering theme. The SeaPerch Program provides students with the opportunity to learn about robotics, engineering, science, and mathematics (STEM) while building an underwater ROV as part of a science and engineering technology curriculum. Throughout the project, students will learn engineering concepts, problem solving, teamwork, and technical applications.

Title: **PHYSICS 1 (Grades 11-12)**

Credit: 1

Prerequisite: Algebra

This course is designed for the college-bound student who desires a general background in physics. Emphasis is on a qualitative understanding of the classical principles of force and motion, energy and momentum, heat and energy, electricity and magnetism, optics and light, and atoms and matter. Problem-solving skills and laboratory are emphasized. Completion of Physics is not a requirement for graduation with an advanced diploma, but is highly recommended. Some programs may require concurrent enrollment in physics, please check your program requirements.

Title: **AP PHYSICS 1 (Grades 11-12)**

Credit: 1

Prerequisite: Algebra 2 with a grade of "B" or better

AP Physics 1 Algebra-based is the equivalent of a first-semester college course in algebra-based physics, but it is designed to be taught over a full academic year to enable AP students to develop deep understanding of the content and to focus on applying their knowledge through inquiry labs. The full year also

allows time for inclusion of physics content specified by state standards. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves and sound. It also introduces electric circuits. Emphasis placed on written communication and mathematical form. Assessments to include clear, coherent paragraph writing, and description-based problem solving. Students enrolled in AP Physics are expected to take the AP exam. **Students may be required to complete a summer assignment.**

Title: **AP PHYSICS 2 (Grades 11-12)**

Credit: 1

Prerequisites: AP Physics 1

The AP Physics 2 course is an Algebra 2/Trig based second-semester college Physics course. It continues the introduction of classical Physics begun in AP Physics 1. Materials covered include magnetism, geometric optics, thermodynamics, fluid mechanics, and modern Physics. The AP Physics 2 course expands upon the following concepts course: momentum, electrostatics, and circuits. Emphasis placed on written communication and mathematical form. Assessments to include clear, coherent paragraph writing, and description-based problem solving.

Title: **AP PHYSICS C CALCULUS BASED (Grade 12)**

Credit: 1

Prerequisite: Two years of laboratory science, concurrent enrollment in Calculus. Students enrolled in this course must have passed either Physics 1 or AP Physics 1. Minimum grade of "B" in Physics 1 and all math courses.

This course serves as the first part of the college foundation in physics for students majoring in the physical sciences or engineering. Methods of calculus are used wherever appropriate in formulating physical principles and applying them to physical problems. The subject matter of the C course is principally mechanics including topics such as linear motion, energy, momentum, angular motion, oscillations, and gravitation. Emphasis placed on written communication and mathematical form. Assessments to include clear, coherent paragraph writing, and description-based problem solving. AP guidelines are followed to prepare the students. A summer assignment may be required. Students are expected to remain in their AP classes for the entire school year. Students enrolled in AP Physics are expected to take the AP exam. **Students may be required to complete a summer assignment.**

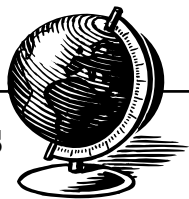
Title: **PRINCIPLES OF ECOLOGY (Grades 11-12)**

Credit: 1

Prerequisites: Biology

This course deals with the study of the interactions among living things and their physical and biological environment. Areas of study include thermodynamics, population dynamics, and natural selection and evolution. It also provides a framework for interpreting information on the natural environment and insight into the consequences of human interactions with natural systems. A major focus of this course is prevention of and solutions to, for example, Green Energy, environmental issues of the 21st century. Students enrolled in this course may participate in animal dissection. Students who decline to participate will be offered alternatives to dissection. A student's objection to participating in an animal dissection should be substantiated by a signed note from his or her parent or legal guardian.

Social Studies



Title: **WORLD GEOGRAPHY (Grades 9-12)**

Credit: 1

Prerequisite: None

This survey course examines the Earth and how humans have developed and interacted inside their environment. Through a study of maps, landscapes, climate, research, and pictures, students will learn basic physical, political, and human geography skills related to the various culture regions throughout the world. A state End-of-Course SOL exam is required for this course.

Title: **HONORS WORLD GEOGRAPHY (Grades 9-12)**

Credit: 1

Prerequisite: None

This survey course examines the Earth and how humans have developed and interacted inside their environment. Through a study of maps, landscapes, climate, research, and pictures, students will learn basic physical, political, and human geography skills related to the various culture regions throughout the world. To prepare students for AP Human Geography, this course will also focus on developing higher level analytical, critical thinking, and writing skills. It is expected that students in this course will enroll in AP Human Geography the following academic year. A state End-of-Course SOL exam is required for this course.

Title: **WORLD HISTORY AND GEOGRAPHY TO 1500 A.D. (C.E.) (Grades 9-12)**

Credit: 1

Prerequisite: None

Students will explore the basic narrative of people, places, and patterns of life from ancient times until 1500 A.D. (C.E.) in terms of their impact on Western civilization. Geographic influences on this historical development will be examined. Students will develop historical thinking skills that draw upon chronological thinking, historical comprehension, historical analysis and interpretation, historical research, and decision making through the study of significant historical substance from the era or society being studied. **Students will be required to take the state End-of-Course SOL for this course.**

Title: **HONORS WORLD HISTORY AND GEOGRAPHY TO 1500 A.D. (C.E.) (Grades 9-12)**

Credit: 1

Prerequisite: None

Students at the honors level will go more deeply into the exploration of life from ancient times until 1500 A.D. (C.E.) using additional readings from primary source documents and writing more extensively to enhance the development of historical thinking skills that draw upon chronological thinking, historical comprehension, historical analysis and interpretation, historical research, and decision-making. **Students will be required to take the state End-of-Course SOL for this course.**

Title: **WORLD HISTORY AND GEOGRAPHY: 1500 A.D. (C.E.) TO THE PRESENT (Grades 10-12)**

Credit: 1

Prerequisites: None

Students will examine history and geography from 1500 A.D. (C.E.) to the present, with emphasis on development of the modern world. Geographic influences on history will continue to be explored, but increasing attention will be given to political boundaries that developed with the evolution of nations. Significant attention will be given to the ways in which scientific and technological revolutions created new economic conditions that, in turn, produced social and political changes. Noteworthy people and events of the nineteenth and twentieth centuries will be emphasized for their strong connections to contemporary issues. **Students will be required to take the state End-of-Course SOL for this course.**

Title: **HONORS WORLD HISTORY AND GEOGRAPHY: 1500 A.D. (C.E.) TO THE PRESENT (Grade 10-12)**

Credit: 1

Prerequisites: None

Students at the honors level will go more deeply into the history and development of the modern world as presented above. While emphasizing the same historical thinking skills that draw upon chronological thinking, historical comprehension, historical analysis and interpretation, historical research, and decision making, students will focus on additional individual and group critical thinking skills involved in "thinking like a historian" through more extensive primary source analysis. **Students will be required to take the state End-of-Course SOL for this course.**

Title: **AP WORLD HISTORY (Grades 10-12)**

Credit: 1

Prerequisite: World History 1 or 2 or Honors World History or AP Human Geography

AP World History is a global approach to the study of human activities of the past with emphasis on worldwide historical processes and connections among the entirety of human societies. The course is designed by the AP College Board and is taught at an introductory college level. The curriculum involves a comprehensive understanding of both factual knowledge and the ability to critically assess historical facts in the context of how environmental, social, scientific and political changes influenced the various societies they touched as well as how groups interacted with each other. Patterns of change over time is a continuing thread of the readings and written responses. Students are expected to remain in their AP classes for the entire school year. Students enrolled in this course are expected to take **the AP exam in May** as well as the **state End-of-Course SOL for World History 2.**

Title: **AP HUMAN GEOGRAPHY (Grades 9-12)**

Credit: 1

Prerequisite: World History Recommended

AP Human Geography is the study of the human systems and processes on Earth as designed by the AP College Board. Students will learn how humans have adapted to and modified their environment by studying Earth at different scales and through different perspectives. This course is taught at the introductory college level, therefore additional emphasis will be placed on reading scholarly works, writing at a collegiate level, and analyzing data. Students are expected to remain in their AP classes for the entire school year. Students enrolled in this course are expected to take **the AP exam in May** as well as the **state End-of-Course SOL for World Geography.**

Title: **VIRGINIA AND UNITED STATES HISTORY (Grade 11)**

Credit: 1

Prerequisite: World History 2 or World Geography

Students will explore the historical development of American ideas and institutions from the Age of Exploration to the present. While focusing on political, geographic, and economic history, the course also provides students with a basic knowledge of American culture through a chronological survey of major issues, movements, people, and events in Virginia and United States history. As a foundation to develop historical thinking skills, students will apply social science skills to understand the challenges faced in the development of the United States. These skills will support the investigation and evaluation of the fundamental political principles, events, people, and ideas that developed and fostered our American identity and led to our country's prominence in world affairs including the skills required for responsible citizenship. **Students will be required to take the state End-of-Course SOL for this course.**

Title: **HONORS VIRGINIA AND UNITED STATES HISTORY (Grade 11)**

Credit: 1

Prerequisite: World History 2 or World Geography

This course has the same basic structure and content as Virginia and United States History above with an additional emphasis on critical thinking skills that draw upon chronological thinking, historical comprehension, historical analysis and interpretation, historical research, and decision making through more extensive use of primary source readings and written responses. **Students will be required to take the state End-of-Course SOL for this course.**

Title: **HONORS AMERICAN CIVILIZATION (Grade 11)**

Credit: 2 (1 History and 1 English)

Prerequisite: Honors World History 1 or 2 AND Honors English 10

American Civilization is taught in a collaborative classroom environment, combining English and Social studies by synthesizing American literature with the corresponding time period in American History. This curriculum also includes studies of American art, architecture, and culture. Students gain a deeper understanding of the parallel nature of American literature and American history. This course is a double-blocked class with both an English and a Social Studies instructor and, taken together, they fulfill graduation requirements for English 11 and US/VA History. **Students will be required to take the state End-of-Course SOL for English 11 and US/VA History in this course.**

Title: **DUAL ENROLLMENT UNITED STATES HISTORY 1 AND 2 (Grade 11)**

Credit: .5 each semester

Prerequisite: Virginia placement test, appropriate paperwork, acceptance into NVCC, 2.0 GPA and enrollment in a career pathway program that leads to certification and/or goal of matriculating into a community college after high school.

Dual enrollment is an enrichment opportunity that allows qualified high school students to take college courses through NVCC, earn NVCC credit and receive high school credit at the same time. This year-long course is the equivalent of NVCC HIS 121 and HIS 122 and allows students to reach a basic understanding of the characteristic features of the United States' early historical development through the early 21st century. Students will learn some of the important political, economic, social, intellectual, cultural and religious changes that shaped the development of the United States and develop a chronology of historical events in American History from pre-Columbian America through those since 1980. **Students will be required**

to take the End-of-Course US/VA History SOL and may also have a summer reading assignment.

Title: **AP US HISTORY (Grade 11)**

Credit: 1

Prerequisite: Honors World History 2 or Honors World Geography and Honors English 10

The AP U.S. History course focuses on developing students' understanding of American history from approximately 1491 to the present as set by the AP College Board. The course has students investigate the content of U.S. history for significant events, individuals, developments, and processes in nine historical periods, and then develop and use the same thinking skills and methods (analyzing primary and secondary sources, making historical comparisons, chronological reasoning, and argumentation) employed by historians when they study the past. The course provides seven themes (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) that students explore throughout the course in order to make connections among historical developments in different times. It is a fast-paced course is taught at the introductory college level with an intense reading requirement. Additional emphasis will be placed on reading scholarly works including the interpretation of original documents, and writing at a collegiate level. Students are expected to remain in their AP classes for the entire school year. Students enrolled in this course are expected to take **the AP exam in May** as well as the **state End-of-Course SOL for U.S. and Virginia History.**

Title: **VIRGINIA AND UNITED STATES GOVERNMENT (Grade 12)**

Credit: 1

Prerequisite: U.S. History

This course helps students define the knowledge that enables citizens to participate effectively in civic and economic life. Students apply social science skills as a foundation to examine fundamental constitutional principles, the rights and responsibilities of citizenship, the political culture, the policy-making process at each level of government, and the characteristics of the United States economy. The course emphasizes an understanding of the duties and responsibilities that facilitate thoughtful and effective participation in the civic life of an increasingly diverse democratic society. Students examine the evolving political and economic roles of Virginia and the United States in the global community.

Title: **HONORS VIRGINIA AND UNITED STATES GOVERNMENT (Grade 12)**

Credit: 1

Prerequisite: U.S. History

Students in this course study the government of the United States and of Virginia as described above but with the additional emphasis on analytical and critical thinking skills designed around in-depth discussions and readings with essay responses regarding the connections of democratic ideals of citizenship and the workings of the federal, state, and local institutions affect the student.

Title: **AP US GOVERNMENT AND POLITICS (Grade 12)**

Credit: 1

Prerequisites: U.S. History

AP United States Government and Politics introduces students to a college-level examination of key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States as designed by the AP College Board. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning to assess causes and consequences of

political events, and interpret data to develop evidence-based arguments. Students describe and compare important facts, concepts, and theories pertaining to U.S. government and politics; explain typical patterns of political processes and behavior and their consequences (including the components of political behavior, the principles used to explain or justify various government structures and procedures, and the political effects of these structures and procedures); interpret basic data relevant to U.S. government and politics (including data presented in charts, tables, and other formats); and critically analyze relevant theories and concepts, apply them appropriately, and develop their connections across the curriculum. Students enrolled in this course are expected to remain in the class for the entire year and to take **the AP exam in May.**

Title: DUAL ENROLLMENT GOVERNMENT A AND B (Grade 12)

Credit: .5 each semester

Prerequisite: Virginia placement test, appropriate paperwork, acceptance into NVCC, 2.0 GPA, AND enrollment in a career pathway program that leads to certification and/or goal of matriculating into a community college after high school.

Dual enrollment is an enrichment opportunity that allows qualified high school students to take college courses through NVCC, earn NVCC credit and receive high school credit at the same time. This year-long course is the equivalent of NVCC PLS 211 and PLS 212 and teaches an in-depth understanding of the American political system. It includes topics of democracy, the Constitution, federalism, political behavior, civil liberties, civil rights, the presidency, Congress, Supreme Court, bureaucracy, and domestic and foreign policy. **Students may be required to complete a summer assignment.**

Title: HONORS PSYCHOLOGY (Grades 10-12)

Credit: 1 (Elective)

Prerequisite: None

Honors Psychology is the first year course preparing students to take the AP Psychology. Honors Psychology focuses on the history of psychology, sensation and perception, scientific research methods in psychology, sensation and perception, states of consciousness, motivation and emotion, abnormal psychology, personality disorders and treatment. This course examines the application of this knowledge to the problems and challenges faced in today's world. Students should take this course if they are motivated and academically prepared for the rigor of this course's expectations. As this course is aimed at preparing the student to take the AP exam, it is AP aligned including use of the AP textbook, tests and vocabulary.

Title: AP PSYCHOLOGY (Grades 11-12)

Credit: 1 (Elective)

Prerequisite: Honors Psychology

This course is the second year in preparing students to take the AP Psychology exam in early May. It will focus on the biological bases of behavior, types of learning, cognitive processing, developmental psychology and social psychology. There will be a brief review of the content covered in Honors Psychology, part of which will be an independent assignment, referring to the AP manual. This course will examine the application of this knowledge to the problems and challenges faced in today's world. Students should take this course if they are motivated and academically prepared for the AP exam at the end of the course. Students enrolled in this course are expected to remain in the class for the entire year and to take **the AP exam in May.**

Title: INTRODUCTION TO PSYCHOLOGY (Grades 10-12)

Credit: .5 (Elective)

Prerequisite: None

In this generalized overview students will explore various element of human behavior and mental processes that are part of the science of psychology: functions of the brain, behavior, and emotions. This semester course will help students understand individual personalities, problems, and communication. The course will include class discussion, lectures, and group learning.

Title: INTRODUCTION TO SOCIOLOGY (Grades 10-12)

Credit: .5 (Elective)

Prerequisite: None

In this semester course, students will explore how people and groups in society are interconnected. Topics to be examine include past and current issues concerning poverty, racism, criminology, and family relationships.

Title: CURRENT AFFAIRS (Grades 11-12)

Credit: .5 (Elective)

Prerequisite: None

In this semester course, student will address local, national and international current issues. The course will also focus on major areas of conflict in the world. The class will engage in critical discussion of topics on social, political, and economic viewpoints. It is suggested that make it a habit to read the newspaper on a daily basis and search the archives for stories relative to the topics studied in class. Instruction includes class discussion, lecture, and group learning.

Title: STREET LAW (Grades 11-12)

Credit: .5 (Elective)

Prerequisite: None

Street Law is a law-related semester education course that will focus on our national, state and local legal systems. The content will be conveyed in a practical format to allow students to gain the knowledge necessary to survive in our law-saturated society. Students will engage in the study of criminal, civil, contract and family law in the classroom and in the community. A strong emphasis will be placed on written work in the form of case studies and mock trials.



Special Education

Each of the courses listed below is offered in a self-contained setting with content identical to that taught in the mainstream class. Modifications will be implemented to meet the needs of student's Individualized Education Plan (IEP). For descriptions of these courses refer to the specific subject area. Some courses will also be offered in an inclusion setting with both a general education teacher and a special education teacher.

Algebra1 Part 1	English 9, 10, 11, 12
Algebra 1 Part 2	Geometry Part 1
Algebra 2 (Teamed Only)	Geometry Part 2
AFDA (Teamed Only)	VA/US History
Biology	VA/US Government
Earth Science	World History 1
Ecology	World History 2

The following courses are offered specifically for special education students within the self-contained setting. Placement in these courses will be determined by the Individualized Education Plan (IEP).

Academic Enhancement
Employment Readiness 1-4
Individual Reading 1-4
Math Concepts

Title: **ACADEMIC ENHANCEMENT (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None. This course may be a required elective based on the recommendation of the caseload manager and student's IEP and may be repeated as needed.

This course focuses on organization and test-taking strategies for improved performance on tests. It is designed to provide students the support they need to be successful in their core academic courses. Part of each class will be designated for direct instruction, completing missing assignments, long-range projects, to make up missing assignments, and testing accommodations, i.e., tests read aloud or additional testing time. The Academic Enhancement teacher will maintain communication with the student's academic teachers and special education case manager in order to monitor progress/grades in all courses. Remedial help for SOL testing will also be emphasized. This course is also recommended for students who are eligible for the Modified Standard Diploma and need additional assistance to pass the alternate/substitute math and reading assessments.

Title: **COMMUNITY BASED INSTRUCTION (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Enrollment in this course is an IEP team

Students will participate in community experiences to enhance vocational and daily living skills. They will be exposed to various parts of the local community to learn skills necessary for post-school adult living and recreation and leisure activities. Students will receive a pass/fail grade.

Title: **EMPLOYMENT READINESS 1 (Grade 9)**

Credit: 1 (Elective)

Prerequisite: None or teacher recommendation

Employment Readiness 1 is a course designed for those in ninth grade who need direct instruction in workplace readiness skills. This course may also be open to juniors, seniors, and post graduate students by teacher recommendation. This course satisfies the first in the sequence of sequential electives needed for a standard diploma.

Title: **EMPLOYMENT READINESS 2 (Grade 10)**

Credit: 1 (Elective)

Prerequisite: Employment Readiness 1 or teacher recommendation May be combined with other vocational classes to satisfy sequential electives.

Employment Readiness 2 develops self-awareness and self-advocacy skills while learning basic job search skills and establishing an understanding of the different occupations that make up the world of work. Informal assessments will be given and the Career Center will introduce Career Clusters and the possible vocations available. This course satisfies the second in the sequence of sequential electives needed for a standard diploma.

Title: **EMPLOYMENT READINESS 3 (Grade 11)**

Credit: 2 (2 Blocks) (Elective)

Prerequisite: Employment Readiness 1 and/or Employment Readiness 2 and/or teacher recommendation. May be combined with other vocational classes to satisfy sequential electives.

Employment Readiness 3 provides students with an opportunity to gain vocational skills through unpaid internships. On-site supervision and evaluation are provided, but there is no on-site job coach. It also serves an opportunity for students with special needs to integrate with typical employees and to build the social skills needed to be successful in the world of work. Besides giving students work experience, it also prepares them for supported or competitive employment. This course satisfies the second in the sequence of sequential electives needed for a standard diploma.

Title: **EMPLOYMENT READINESS 4 (Grade 12)**

Credit: 1 (Elective)

Prerequisite: Employment Readiness 1 and/or Employment Readiness 2, Employment Readiness 3 and/or teacher recommendation. Can be combined with other vocational classes to satisfy sequential elective, however, will NOT satisfy sequential elective credit if taken without one of the Employment Readiness courses listed above.

Employment Readiness 4 is for special education students in 11 or 12 grade and focuses on developing employability and life management skills. Elements of job safety, interviewing, paying taxes, diversity, job-site behavior skills, and developing a resume are included in the curriculum. This course satisfies the second in the sequence of sequential electives needed for a standard diploma.

Title: **INDEPENDENT LIVING (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Enrollment in this course is an IEP team decision.

Independent Living focuses on functional academics, daily living, and vocational skills. Students enrolled in this course are working on the Aligned Standards of Learning (ASOL) and participate in the Virginia Alternate Assessment Program (VAAP). This course is designed for students who require intensive support and modified instruction with extensive physical modeling and assistance. Students will receive a pass/fail grade.

Title: **INDIVIDUAL READING 1, 2, 3, 4 (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: None. This course may be a required elective based on the recommendation of the caseload manager and student's IEP and may be taken as a sequential elective.

This course is designed to help students become more effective readers through individually designed reading programs. The course of study is based on each student's individual needs, goals, and interests. Students read a variety of fiction and nonfiction materials. A direct and systematic instructional approach is used to facilitate student's decoding, spelling, reading comprehension, and writing. Other areas addressed are word structure, vocabulary development, and study skills.

Title: **LIFE SKILLS (Grades 9-12)**

Credit: 1

Prerequisite: IEP and case manager recommendation

Students will build on their individual and group skills by receiving hands-on instruction and application in practical daily basic life knowledge in nutrition, hygiene, kitchen safety, health and wellness, care and maintenance of clothing to include laundering and sewing, house management and maintenance, and how to use and navigate various modes of transportation within their community.

Title: **MATH CONCEPTS (Grades 9-12)**

Credit: 1

Prerequisite: None. This course may be a required elective based on the recommendation of the caseload manager and student's IEP.

Students enrolled in this course are not ready for Algebra 1. This course is recommended for students who are eligible for the Modified Standard Diploma and need additional assistance to pass the alternate/substitute assessment (Work Keys Math). The course begins its focus on instruction in basic computational skills of whole numbers, decimals, and fractions. Simple consumer applications are addressed. The curriculum also covers integers and rational numbers, order of operations, introduction to basic algebraic and geometric concepts, simplification of algebraic expressions, and techniques of solving simple linear equations. **This course does not satisfy a math requirement for graduation.**

Title: **SOCIAL SKILLS 1, 2, and 3 (Grades 9-12)**

Credit: 1 each (Elective)

Prerequisite: Determined by IEP placement

This course provides students with direct instruction in specific social skills using the Skillstreaming and Prepare social skills programs to increase academic achievement through the teaching and remediation of social skills. When completed, students will be able to demonstrate appropriate behavior in transitioning between environments, effective communication skills, and positive relationships with others, project a positive self-image, and utilize social skills in the learning process.



Title: **ARABIC 1 ONLINE (Grades 9-12)**

Credits: 1

Prerequisite: None

This course is an introduction to the Arabic language for beginner students with no prior knowledge of the language. This course teaches students the communication skills for speaking, reading, writing and comprehending Arabic, in accordance with the national standards for teaching foreign languages.

Title: **CHINESE 1 ONLINE (Grades 9-12)**

Credits: 1

Prerequisites: None

The Chinese 1 course helps students 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.

Title: **FRENCH 1**

Credit: 1

Prerequisite: None

This course is designed to raise the student's awareness of the French-speaking world and to develop the communicative skills necessary to compete in today's global environment. A variety of teaching methods and technology is used to introduce students to basic vocabulary, grammar and culture, while gradually building communication skills in the areas of listening, speaking and writing.

Title: **FRENCH 2**

Credit: 1

Prerequisite: French 1

This course builds upon listening, speaking, reading and writing acquired in the French 1 language course. It is aimed at increasing literacy in the language to enable the students to create meaningful conversations, writings and projects directed toward their own interests and activities. Students will gain sufficient cultural awareness to be comfortable in typical exchanges in a realistic environment.

Title: **HONORS FRENCH 2**

Credit: 1

Prerequisite: French 1 and Teacher Recommendation

In this course, the five language skills of listening, speaking, reading and writing, along with, cultural awareness are more fully developed. Students are expected to express personal and authentic experiences through meaningful conversations, writings and projects.

Title: **FRENCH 3**

Credit: 1

Prerequisite: French 2

Building upon the skills acquired in the Level 2 language course, students will learn additional vocabulary and structures to allow them to increase written and spoken self-expression. The five language skills of listening, speaking, reading, writing and cultural awareness become highly developed.

Title: **HONORS FRENCH 3**

Credit: 1

Prerequisite: French 2 and Teacher Recommendation

This course stresses fluency within the language. Emphasis is placed on spontaneous writing and extemporaneous conversation. The students are introduced to a variety of literary selections designed to further their appreciation of French culture and civilization.

Title: **HONORS FRENCH 4**

Credit: 1

Prerequisite: French 3 and Teacher Recommendation

This course builds upon the skills acquired in previous levels to facilitate advanced linguistic development. Emphasis is placed on developing communicative skills through the study of relevant and colloquial vocabulary necessary to function in today's ever-changing world. The students are exposed in a more in-depth way, to the geography, history and rich cultures of the Francophone world.

Title: **HONORS FRENCH 5**

Credit: 1

Prerequisite: Honors French 4 with Teacher Recommendation

Advanced study of the French language and culture continues with a focus on the proficient use of vocabulary and grammar is further developed. Students are expected to demonstrate a deeper understanding of the former and to express their opinions creatively. The reading, audio and video selections presented in this course expand and enhance the students' understanding of French not only as a language but also as a way of life.

Title: **LATIN 1**

Credit: 1

Prerequisite: None

Latin 1 students learn to read and comprehend simple Latin passages through a study of Latin grammar. Students also learn about the history, daily life, and mythology of the ancient Romans. Building English vocabulary from a basic knowledge of Latin root words is emphasized.

Title: **LATIN 2**

Credit: 1

Prerequisite: Latin 1

Latin 2 continues the study of Latin grammar begun in Latin 1. Students learn to read and comprehend complex Latin passages and engage in an intensive study of ancient Roman history. Emphasis is still placed upon building English vocabulary from a basic knowledge of Latin root words.

Title: **HONORS LATIN 2**

Credit: 1

Prerequisite: Latin 1 and Teacher Recommendation

The Honors Latin 2 class will cover the same curriculum as the Latin 2 class, but in different ways. The main difference between the honors class and the regular class will be in the types of assignments given. The honors assignments and tests will frequently involve more analysis and critical thinking in addition to the required memorization.

Title: **LATIN 3**

Credit: 1

Prerequisite: Latin 2

Latin 3 completes the study of Latin grammar begun in Latin 1. Latin 3 is also a study of Latin prose via Roman authors such as Livy, Caesar, and Pliny. Students continue their study of Roman history.

Title: **HONORS LATIN 3**

Credit: 1

Prerequisite: Latin 2 and Teacher Recommendation

The Honors Latin 3 class will cover the same curriculum as the Latin 3 class, but in different ways. The main difference between the honors class and the regular class will be in the types of assignments given. The honors assignments and tests will frequently involve more analysis and critical thinking in addition to the required memorization.

Title: **HONORS LATIN 4**

Credit: 1

Prerequisite: Latin 3 and Teacher Recommendation

Latin 4 includes a review of important grammatical concepts followed by a study of Latin poetry via Roman authors such as Ovid and Catullus. Attention is paid to poetic meter and cultural influences. Students continue the study of Roman history.

Title: **HONORS LATIN 5**

Credit: 1

Prerequisite: Latin 4 and teacher recommendation

Latin 5 students concentrate on reading and comprehending the poetry of Roman authors such as Vergil. Emphasis is placed upon recognizing how poetic meter, figures of speech, and cultural influences enhance the meaning of the Latin.

Title: **AP LATIN**

Credit: 1

Prerequisite: Honors Latin 4 with Teacher Recommendation

AP Latin students concentrate on reading and comprehending prose and poetry texts, particularly the works of Caesar and Vergil. Emphasis is placed upon recognizing how poetic meter, figures of speech, and cultural influences enhance the meaning of these texts. By frequent examination of texts with relatively common vocabulary and straightforward grammar and syntax, students will develop their ability to read Latin at sight.

Title: **SPANISH FOR HERITAGE LEARNERS 1 & 2**

Credit: 2 (Pass/fail credit is given for 1st semester and grade for 2nd semester)

Prerequisite: Spanish Placement Test (by March 1)

This course is taught in Spanish and designed to help further develop basic reading, writing, comprehension, and listening skills. Students are required to take the placement test to assess basic comprehension and writing skills. Students will explore many topics that correlate to real world events, such as history, geography, customs, and language variations. In this course, students will also learn about grammatical structures and will be expected to apply this knowledge through oral and written reports about the various topics covered. Upon successful completion of this course students will be recommended to take Honors Spanish for Heritage Learners 3 & 4 or Spanish 3.

Title: **HONORS SPANISH FOR HERITAGE LEARNERS 3 & 4**

Credit: 2 (Pass/fail credit is given for 1st semester and grade for 2nd semester)

Prerequisite: Spanish Heritage Learner 1&2 or Spanish Placement Test

This course is designed for students who have successfully completed Spanish Heritage Learner 1 & 2. It focuses on an academic level of language through more complex grammatical structures and a variety of listening, reading, writing and speaking activities. Students will demonstrate their further understanding with written and spoken assessments about world topics. Upon completion of this course, the student will be recommended for AP Spanish Language and Culture.

Title: **SPANISH 1**

Credit: 1

Prerequisite: None

Students will begin to learn about the written and spoken language. They will be able to understand, speak, read, and write using basic vocabulary and grammar in the target language. Students should begin to communicate in the target language as they are learning how to apply the language to real daily life situations of school, community and home. Culture and geography of Spanish Speaking countries are integral parts of the course.

Title: **SPANISH 2**

Credit: 1

Prerequisite: Spanish 1 or Spanish Placement Test

Spanish 2 will build upon Spanish 1 vocabulary and grammar skills. Students will learn to apply previous knowledge to new knowledge by learning to speak about past actions while continuing to develop grammar and understanding of the language through listening, reading and writing skills. Customs and culture continue to be an integral part of the course. Students will be expected to give both oral and written reports in Spanish.

Title: **HONORS SPANISH 2**

Credit: 1

Prerequisite: Spanish 1 and Teacher Recommendation

Honors Spanish 2 will continue to build on vocabulary and grammar structures learned in Spanish 1. This course focuses on additional listening, reading, writing, and speaking skills through a variety of activities such as oral and written projects. Customs and culture continue to be an integral part of the program. Students will be able to demonstrate this knowledge in a variety of written and spoken presentations in Spanish.

Title: **SPANISH 3**

Credit: 1

Prerequisite: Spanish 2

Spanish 3 will build upon vocabulary and grammar structures learned in Spanish 1 and 2. Students will continue to work toward the mastery of critical elements of vocabulary and grammar. Listening, speaking, reading, and writing will begin to become more complex as it focuses on an academic level of the Spanish language. Customs and culture continue to be a part of the curriculum where the students will be able to give presentations on various topics, in Spanish, that incorporate learned vocabulary and grammar structures of the Spanish language.

Title: **HONORS SPANISH 3**

Credit: 1

Prerequisite: Spanish 2 and Teacher Recommendation

Honors Spanish 3 is an accelerated program building upon vocabulary and grammar structures learned in Spanish 1 and 2. Students will continue to work toward the mastery of critical elements of vocabulary and grammar. Additional focus on listening, speaking, reading, and writing will become more complex as assignments focus on the academic usage of the Spanish language. Customs and culture continue to be a part of the curriculum; the students will give presentations on various topics in Spanish that allow them to incorporate and demonstrate their knowledge of customs, culture, vocabulary, and grammar usage at an intermediate level.

Title: **HONORS SPANISH 4**

Credit: 1

Prerequisite: Spanish 3 or Honors Spanish 3

Honors Spanish 4 is taught primarily in Spanish. Students will use complex grammatical structures in a more rigorous manner. Students will develop an advanced communication through utilizing authentic materials from Spanish speaking countries. Developing listening, speaking, reading, and writing skills is emphasized through dialogues, group discussions, reading comprehension, and authentic audio and video materials. Advanced vocabulary is taught through word analysis, idioms, synonyms and antonyms. Culture focuses on art and literature of the Spanish-speaking world.

Title: **AP SPANISH LANGUAGE AND CULTURE**

Credit: 1

Prerequisite: Completion of Spanish 4 or seniors that have completed Spanish 3 with Teacher Recommendation

Advanced Placement Spanish Language and Culture is a course designed to develop proficiency in the target language for highly motivated students. The course is taught as a second or third year college or university language course and is CollegeBoard approved. A rigorous pace will be used to review listening, speaking, reading, and writing skills while focusing on cultures of the Spanish-speaking world. This course builds upon the critical thinking activities of the Honors Spanish 4 course. Throughout the year, the format of the AP Spanish Language and Culture test will be explained, reviewed and practiced through a variety of activities that will prepare students for the final exam. **Students enrolled in this course take the AP Spanish Language and Culture Exam in early May.**



Special Programs

Title: **ADVANCEMENT VIA INDIVIDUAL DETERMINATION (AVID) (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Screening Process, 2.0-3.5 GPA

AVID is a rigorous college preparatory program for **highly motivated** students **who have a desire to attend a four-year university**. Students will be enrolled in a grade level AVID elective class, and concurrently enrolled in rigorous college preparatory (Honors, AP, and/or DE) courses as well. The AVID program uses a curriculum that emphasizes WICOR (writing, inquiry, collaboration, organization, and reading), collaborative tutorial support, and motivational activities to support college and career readiness. Students take a course of study designed to prepare them for college acceptance upon graduation from high school.

Title: **BILINGUAL PEER TUTORING (Grades 11-12)**

Credit: .5 (Elective)

Prerequisite: Proficiency in English and another foreign language, grade of B or better in content area student wishes to tutor

Students must be willing to give their time freely to help others in their core subjects. **This course is graded on a pass/fail basis and will not be calculated into GPA or class rank.**

Title: **LEADERSHIP (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: None

Work-Based Learning: Available

This introductory course provides an opportunity for students to develop both intrapersonal and interpersonal speaking, listening, and writing skills necessary to develop a solid leadership foundation. Students will engage in experiential learning exercises such as small group projects as well as a more traditional strand through written reflections and projects. Active school involvement and service learning hours are required. Students begin the NASC Certified Leaders Program.

Title: **SCA LAB (Grades 11-12)**

Credit: 1 (Elective)

Prerequisite: Leadership

This course introduces students to the project-planning model with steps such as goal setting, proposals, objective charts, and evaluations. Student work is a mixture of traditional writing, group project planning and implementation, as well as involvement in the planning of projects. Active school involvement and service learning hours are required.

Title: **PEER MENTORING 1 (Grades 11-12)**

Credit: 1 (Elective)

Prerequisite: Application and principal approval

Peer Mentoring is a course designed for students interested in teaching, counseling, and/or working with children. The focus of this course is to enhance student achievement. Peer Mentoring teaches skills in leadership, communication, collaboration, and responsibility. Peer Mentors will travel to an assigned local elementary, intermediate or middle school where they will work with students to improve their academic and/or social skills. A Reflection Day will be held once a week during first semester to share experiences and discuss ways to handle challenges that occur. Peer Mentors are required to keep a journal and complete 10 hours of community/school service per semester.

Title: **PEER MENTORING 2 (Grades 11-12)**

Credit: 1 (Elective)

Prerequisite: Peer Mentoring 1 and principal approval

Peer Mentoring is a course designed for students interested in teaching, counseling, and/or working with children. The focus of this course is to enhance student achievement. Peer Mentoring teaches skills in leadership, communication, collaboration, and responsibility. Peer Mentors will travel to an assigned local elementary, intermediate or middle school where they will work with students to improve their academic and/or social skills. A Reflection Day will be held once a week during first semester to share experiences and discuss ways to handle challenges that occur. Peer Mentors are required to keep a journal and complete 10 hours of community/school service per semester.

Title: **PRACTICAL NURSING 1A (Grade 12-Adult)**
PRACTICAL NURSING 1B

Credits: 3 (Elective) with completion of 1A and 1B
(1A 18 weeks & 2A 18 weeks)

Prerequisite: None (Biology, Chemistry, and Algebra recommended.) Prepares for Licensure Exam. **Admission by application.**

Practical Nursing 1 introduces the student to personal and vocational relationships in nursing, structure and function of the human body, concepts in normal and therapeutic nutrition, and human behavior through the lifespan. Developmental skills in nursing arts and pharmacology, including patient care and administration of medications, are fostered. An awareness of professional and ethical attitudes is emphasized through the course. Students enrolled in this course must pay for textbooks and uniforms. This course is offered at Osbourn Park.

Title: **PRACTICAL NURSING 2 (Adult)**

Credit: No Credit

Prerequisite: Practical Nursing 1, Tuition

Practical Nursing 2 is an all day, 36-week occupational preparation course offered to Practical Nursing 1 completers only. Classroom and clinical training are given in approved hospitals, licensed nursing homes, or home-care settings under the direction of a nurse educator. Tuition is charged for this portion of the program. Upon successful completion of the total program, students qualify to take the practical nurse licensing examination. This post-high school course is offered at Osbourn Park.



GENERAL INFORMATION: NROTC is offered at Osbourn Park High School and bus transportation is provided. Two blocks of scheduling may be required. All students must be able to participate in a physical education program. Extracurricular activities include Drill Team/Color Guard, Air Rifle Team, Academic Team, Athletics Team, Orienteering Team, and active participation in community events and in the unit organization. **An application and physical is required for admission to this course. Deadline for completed applications is April 15, 2019.**

Title: **NAVAL SCIENCE 1 (Grades 9-12)**

Credit: 1 (Elective)

Prerequisite: Transportation/Physical Activity, Application

This course introduces military customs and courtesies, leadership, government, geography, naval history, introductory navigation, and basic seamanship. Students are inspected in their Naval Cadet uniform once a week, participate in military

drills, and attend field trips as well as training visits to military installations, ships, and museums.

Title: **NAVAL SCIENCE 2 (Grades 10-12)**

Credit: 1 (Elective)

Prerequisite: Naval Science 1

Naval Science 2 Includes ongoing instruction into Leadership, introduction to Maritime History, including the American Revolution, Civil War, the rise of the U. S. to world power status, World Wars 1 and 2, the Cold War Era and the 1990s and beyond. Introduction to Nautical Sciences includes Maritime Geography, Oceanography, Meteorology, Astronomy, and Physical Sciences. Students are inspected in their Naval Cadet uniform once a week, participate in military drills, and attend field trips and training visits. Second-year cadets begin to assume leadership positions in the unit and in the various extracurricular activities.

Title: **NAVAL SCIENCE 3 (Grades 11-12)**

Credit: 1 (Elective)

Prerequisite: Naval Science 2

This course includes instruction in Sea Power and National Security, Naval Operations and Support Functions, Military Law, and International Law and the Sea. NS3 introduces Ship Construction and Damage Control, Shipboard Organization and Watch Standing, Basic Seamanship, Marine Navigation, and Naval Weapons and Aircraft. Ongoing instruction in leadership, citizenship and discipline is presented. Students are inspected in their Naval Cadet uniform once a week, participate in military drills, and attend field trips and training visits. Third-year students shoulder more leadership responsibilities and administrative roles within the unit.

Title: **NAVAL SCIENCE 4 (Grade 12)**

Credit: 1 (Elective)

Prerequisite: Naval Science 3 or Instructor Permission

Naval Science 4 includes instruction in theoretical and applied aspects of leadership, training, and evaluation of performance. Students will become aware of the techniques used to create motivation, develop goals and activities for a work group, and the proper ways to set a leadership example. Students are provided access to ACT/SAT prep courses, guidance in selecting a college and pursuing available scholarships, and mentoring in establishing long-range life goals. Students are inspected in their Naval Cadet uniform once a week, participate in military drills, and attend field trips and training visits. Fourth-year students are responsible with the operational and administrative running of the unit.



THE GOVERNOR'S SCHOOL @INNOVATION PARK
Offered ONLY at The Governor's School @ Innovation Park
Dual Enrollment

The Governor's School @ Innovation Park provides an alternative learning environment in a university-setting designed to meet the needs of academically talented and highly motivated learners. The STEM program provides a uniquely designed integrated science, math, engineering, and technology curriculum with real world research and application opportunities. Application process and acceptance into the program required. Students must apply and be accepted in a single science strand.

GS COLLEGE PHYSICS 1

Credit: .5 High School Credit
(GMU PHYS 243 and Lab 244-4 credits; 03171DE)
Prerequisite: Algebra 2/Trigonometry

The first of a two-semester foundation course with emphasis on topics of classical and modern physics of particular importance to science majors. Principles of mechanics, heat, electricity, magnetism, optics, and atomic and nuclear physics are discussed.

GS COLLEGE PHYSICS 2

Credit: .5 High School Credit
(GMU PHYS 245 and Lab 246-4 credits; 03172DE)
Prerequisite: GS College Physics 1

Continues the foundation course with emphasis on topics of classical and modern physics of particular importance to science majors. Principles of mechanics, heat, electricity, magnetism, optics, and atomic and nuclear physics are discussed. This course and GS College Physics 1 prepare students to take the Advanced Placement Physics 1 and 2 examinations, which MCPS suggests but does not require its Governor's School students to take.

GS UNIVERSITY PHYSICS 1

Credit: .5 High School Credit
(GMU PHYS 160 and Lab 161-4 credits; 03173DE)
Prerequisite: GS College Physics II

The first of the two-semester calculus-based physics sequence designed for science and engineering majors. This course focuses on mechanics.

GS UNIVERSITY PHYSICS 2

Credit: .5 High School Credit
(GMU PHYS 260 and Lab 261-4 credits; 03174DE)
Prerequisite: GS University Physics 1

Continues Calculus-based physics sequence designed for science and engineering majors. This course focuses on waves, electricity, and magnetism. This course and GS University Physics 1 prepare students to take both parts of the Advanced Placement Physics C examination, which MCPS suggests but does not require its Governor's School students to take.

GS GENERAL BIOLOGY 1

Credit: .5 High School Credit
(GMU BIOL 103-4 credits; 03071DE)
Prerequisite: Honors Biology

The first of a two-semester focused survey course with topics that include chemistry of life, cell structure and function, Mendelian genetics, evolutions and diversity of life.

GS GENERAL BIOLOGY 2

Credit: .5 High School Credit
(GMU BIOL 104-4 credits; 03072DE)
Prerequisite: GS General Biology 1

Continues the focused survey course with topics that include animal (including human) structure, function, homeostatic mechanisms, organ systems, behavior, higher plant systems, and major concepts in ecology. This course and GS General Biology 1 prepare students to take the Advanced Placement Biology examination, which MCPS suggests but does not require its Governor's School students to take.

GS HUMAN ANATOMY AND PHYSIOLOGY

Credit: .5 High School Credit
(GMU BIOL 124-4 Credits; 03053DE)
Prerequisite: GS General Biology 2

Provides students with an introduction to the structure and function of the body's major organ systems. The course will cover the principles of biology and chemistry required to understand physiology. The course explores the chemical, cellular, and tissue levels of organization in the human body. The survey of organ systems includes the study of the structure and function of the integumentary, skeletal, muscular, and nervous systems. Laboratory exercises are included and designed to reinforce the lecture materials by providing opportunities for observation and manipulation of anatomical structure and experiments in physiological principles.

GS MICROBIOLOGY

Credit: .5 High School Credit
(GMU BIOL 246-3 credits; 03060DE)
Prerequisite: GS Human Anatomy and Physiology

Focuses on microbial cell structure, physiology, and pathogenicity of various microorganisms including bacteria, viruses, and fungi. Emphasis is placed on the control of microorganisms, host-parasite interactions, immunology, and viral and bacterial pathogens. This broad survey course includes coverage of various infectious diseases including etiological agents, modes of transmission, presentation of symptoms, treatment, and prevention. An environmental aspect is also included to increase students' understanding of the utilization of microorganisms in the environmental processes such as fermentation and waste management.

GS GENERAL CHEMISTRY 1

Credit: .5 High School Credit
(GMU CHEM 211- 4 credits; 03111DE)
Prerequisite: Honors Chemistry

The first of a two-semester course focused on basic facts and principles of chemistry, including atomic and molecular structure, gas laws, kinetics, equilibrium, electrochemistry, nuclear chemistry, and properties and uses of the more important elements and their compounds.

GS GENERAL CHEMISTRY 2

Credit: .5 High School Credit
(GMU CHEM 212-4 credits)
Prerequisite: GS General Chemistry 1

Continues survey course focused on the principles of chemistry, including atomic and molecular structure, gas laws, kinetics, equilibrium, electrochemistry, nuclear chemistry, and properties and uses of the more important elements and their compounds. This course and GS General Chemistry I prepare students to take the Advanced Placement Chemistry examination, which MCPS suggests but does not require its Governor's School students to take.

GS INTRODUCTION TO ORGANIC CHEMISTRY

Credit: .5 High School Credit
(GMU CHEM 104-4 credits; 03103DE)
Prerequisite: GS General Chemistry 2

Presents students with modern and historical accounts of organic chemistry, biochemistry, pharmacology, and fuel chemistry. Topics include the chemistry of carbon compounds, synthesis of polymers and their utility and use in the modern world, biomolecules, DNA and animal cloning, embryonic stem cells, the chemical structure and biological activity of drugs and medicines, and fuel chemistry including petroleum through green chemistry.

GS INTRODUCTION TO ENVIRONMENTAL CHEMISTRY

Credit: .5 High School Credit
(GMU CHEM 155-4 credits; 03108DE)
Prerequisite: GS Introduction to Organic Chemistry

Introduces the major topics of modern environmental chemistry. Topics include basic chemical principles of Earth's water, air, and soil systems; presented in the context of understanding environmental issues. Includes Saturday morning field trips to sites of past and present environmental contamination, alternating with Saturday morning laboratory activities.

GS PRINCIPLES OF TECHNOLOGY/INTRODUCTION TO ENGINEERING

Credit: .5 High School Credit
(GMU ENGR 107-2 credits; 21016DE)
Prerequisites: None

Introduces engineering profession fundamentals and problem-solving. Topics include description of engineering disciplines, functions of the engineer, professionalism, ethics and registration, problem solving and representation of technical information, estimation and approximations, and analysis and design.

GS PRINCIPLES OF TECHNOLOGY/GEOMATICS ENGINEERING (21017)

Credit: .5 High School Credit
(GMU CEIE 203- 3 credits; 21017DE)
Prerequisite: None

Introduces topographic surveying and engineering drawing for civil engineering applications. Topics include surveying, GPS, GIS, digital terrain modeling, design of horizontal and vertical curve geometry for road applications, engineering drawing concepts, and drawing with CAD-based software. Fieldwork required on selected topics.

GS PRINCIPLES OF TECHNOLOGY/INTRODUCTION TO COMPUTER SCIENCE

Credit: .5 High School Credit
(GMU CS 112-4 credits; 21018DE)
Prerequisite: None

Introduces the use of computer programming as a problem-solving tool. Topics in procedural programming include expressions, control structures, simple data types, input/output, graphical interfaces, testing, debugging, and programming environments.

GS PRINCIPLES OF TECHNOLOGY/OBJECT ORIENTATED PROGRAMMING

Credit: .5 High School Credit
(GMU CS 211-3 credits; 21019DE)
Prerequisite: None

Focuses on problem solving, testing, and debugging; and introduces object-oriented programming. Topics include classes, inheritance, packages, collections, exceptions, and polymorphism. Examples in the course may include the use of basic data structures.

GS BIOENGINEERING

Credit: .5 High School Credit
(GMU 101-3 credits)
Prerequisite: None

Surveys the field of bioengineering and the global impact of technology innovation in solving problems in biology and medicine with an emphasis on engineering tools and concepts. Introduces mathematical modeling and analysis of bioengineering problems through the use of standard software packages for simulation. Discusses the history, ethical/social implications, and career paths in Bioengineering.

GS PRINCIPLES OF TECHNOLOGY/INVENTIONS.INNOVATIONS

Credit: .5 High School Credit
Prerequisite: None

Uses engineering design activities to help students understand how criteria, constraints, and processes affect design solutions. Provides students with the skills to systematically assess technological developments or solutions. Course topics include brainstorming, visualizing, modeling, simulating, constructing, testing, and refining designs.

INTRODUCTION TO SCIENTIFIC RESEARCH 1

Credit: 1 High School Credit
(GMU COS 120-3 credits; 03212DE)
Required Junior Course

INTRODUCTION TO SCIENTIFIC RESEARCH 2

Credit: 1 High School Credit
(GMU COS 120-3 credits; 03212DE)
Required Senior Course

MATHEMATICS PLACEMENT IS DETERMINED BY THE GMU MATHEMATICS PLACEMENT EXAMINATION SCORES

GS PRE-CALCULUS

Credit: 1 High School Credit
(GMU MATH 105-4 credits; 02110DE – Second Semester)
Prerequisite: Algebra 2/Trigonometry

Reviews mathematics skills essential to the study of calculus. Topics include equations, inequalities, absolute values, graphs, functions, exponential and logarithmic functions, and trigonometry.

GS CALCULUS 1, Part A

Credit: .5 High School Credit
(GMU MATH 123-3 credits; 02127DE)
Prerequisite: GS Pre-Calculus

Integrates the beginnings of calculus through the derivative with relevant pre-calculus algebra and trigonometry.

GS CALCULUS1, Part B

Credit: .5 High School credit
(GMU MATH 124-3 credits, 02128DE)
Prerequisite: GS Calculus 1, Part A

Continues the review of mathematics skills essential to the study of calculus and will review basic differentiation and applications and then proceed to cover integration including transcendental functions.

GS CALCULUS 1

Credit: .5 High School Credit
(GMU MATH 115 -4 credits; 02129DE)
Prerequisite: GS Pre-Calculus

Covers functions, limits, the derivative, maximum and minimum problems, the integral, and transcendental functions.

GS CALCULUS 2

Credit: .5 High School Credit
(GMU MATH 116 -4 credits; 02130DE)
Prerequisite: GS Pre-Calculus

Covers methods of integration, conic sections, parametric equations, infinite series, and power series. This course and GS Calculus 1 prepare students to take the Advanced Placement Calculus B/C examination which MCPS suggests but does not require its Governor School students to take.

GS MULTIVARIABLE CALCULUS

Credit: .5 High School Credit
(GMU MATH 215 -3 credits; 02122DE)
Prerequisite: GS Calculus 2

Covers vectors and vector-valued functions, partial differentiation, multiple integrals, line integrals, surface integrals, and transformation of coordinates.

GS LINEAR ALGEBRA

Credit: .5 High School Credit
(GMU MATH 203-3 credits; 02111DE)
Prerequisite: GS Multivariable Calculus

Covers systems of linear equations, linear independence, linear transformations, inverse of a matrix, determinants, vector spaces, eigenvalues, eigenvectors, and orthogonalization.

ACADEMIC & CAREER PLAN

The Board of Education included in its 2009 revisions to the Regulations Establishing Standards for Accrediting Public Schools in Virginia, (8 VAC-20-131-5 et seq) provisions for each middle and high school student to have a personal learning plan that aligns academic and career goals with the student's course of study.

8 VAC 20-131-140: College and career preparation programs and opportunities for postsecondary credit.

Beginning with the 2013-2014 academic year, all schools began development of a personal Academic and Career Plan for each seventh-grade student. Beginning with the 2014-2015 academic year, students who transfer into a Virginia public school after their eighth-grade year will have an Academic and Career Plan developed upon enrollment. The components of the Plan shall include, but not be limited to, the student's program of study for high school graduation and a postsecondary career pathway based on the student's academic and career interests. The Academic and Career Plan shall be developed in accordance with guidelines established by the Board of Education and signed by the student, student's parent or guardian, and school official(s) designated by the principal. The Plan shall be included in the student's record and shall be reviewed and updated, if necessary, before the student enters the ninth and eleventh grades. The school shall have met its obligation for parental involvement if it makes a good faith effort to notify the parent or guardian of the responsibility for the development and approval of the Plan. Any personal academic and career plans prescribed by local school boards for students in grades 7 through 12 and in effect as of June 30, 2009, are approved to continue without further action by the Board.