

# ***JOHN HANDLEY HIGH SCHOOL***



## **COURSE CATALOG**

**Grades 9-12**

**425 Handley Blvd.  
Winchester, Virginia 22601  
(540) 662-3471**



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## PRINCIPAL'S MESSAGE

Dear Students and Parents:

For eighty-eight years, John Handley High School has exercised a profound influence on the citizens of Winchester. As the training ground for future civic leaders, businessmen, professionals and citizens in all walks of life, Handley High School has provided the “bricks and mortar” for building successful futures. Our current staff follows a long line of distinguished educators at Handley and takes great pride in the school. We are constantly seeking ways to improve the quality of education at Handley.

“Handley Pride” is a motto that has a special significance for both present and former Handley students. It expresses a feeling that is rooted in many years of tradition, and it flows from the camaraderie of students and teachers laboring together in a common quest for excellence. This “pride” has resulted in a remarkable history of achievements by Handley Students who have carried our banner to statewide fame in academic accomplishments, sports competitions, and extracurricular activities.

One of the most important things we do each year is to develop our curricular offerings and allow our students to make their course selections for the next school year. After these selections are made, we are then able to determine our staffing needs and schedule our teachers for the following year. It is very important for you, as parents, to become involved in this course selection process with your children and to signify your approval of the courses they have chosen with your signature on the course selection form.

At Handley High School, children can expect to enter an environment where teachers can teach and students can learn. We are proud to provide an environment where the loftiest intellectual goals can be cultivated, where a wide variety of career choices can be explored and developed, and where timeless traditional values are honored and encouraged. Here you will find teachers who love to teach, who are close to their students, and who provide a wholesome influence for their students. At Handley, character development and good citizenship are intertwined with every activity. Our success as a school depends on the continuation of these attitudes, beliefs and expectations, and on a strong supportive community.

If you have questions about our programs or if I can be of service to you in any way, you may contact me at 662-3471. Together we can build a bright future for all our students.

Sincerely,

V. Douglas Joyner  
Principal

# INTRODUCTION

John Handley High School is accredited by the Virginia State Department of Education. It is also a member of the Virginia High School League.

## GRADUATION REQUIREMENTS

All students must earn a minimum number of units of credit in grades nine through twelve based upon their diploma choice.

All students are required to schedule eight (8) credits per year

VERIFIED CREDIT means that the student has passed the state required Standards of Learning (SOL) test in addition to the course. VERIFIED credits are earned in the following courses:

- Reading (administered in English 11)
- Writing (administered in English 11)
- Algebra I
- Geometry
- Algebra II
- Earth Science
- Biology
- Chemistry
- World History / Geography I
- World History / Geography II
- US History

Students must pass the required subjects for the diploma program they pursue. High school credit is awarded for high school subjects taken in middle school (e.g. Algebra 1, Geometry, Algebra 2, foreign language and certain career/technical courses).

## PROMOTION

A student on an Advanced Studies, Advanced Technical, Standard, or Standard Technical Diploma track must have earned the following credits to be classified a particular grade:

Sophomore - 5 credits

Junior - 11 credits and a minimum of a second year in high school

Senior - 17 credits and a minimum of a third year in high school.

A student working towards a Modified Diploma must have earned the following credits to be classified in a particular grade:

Sophomore – 4 credits

Junior – 9 credits

Senior – 14 credits

Students will not be promoted mid-year.

## SPECIAL EDUCATION

A variety of classes are offered for Special Education students including self-contained, inclusion and general education classes. These classes are chosen based on the individual needs of the student and state diploma requirements. Decisions regarding scheduling are discussed during the IEP meeting for the upcoming school year.

## STUDENT SCHEDULE ADJUSTMENTS

- ✓ Errors will be corrected the first 2 days of the school year. An error may include the following; missing a class, a previously passed course, or placement in a course for which the prerequisites have not been met. Errors will be corrected for both semesters at this time.
- ✓ A schedule adjustment may be requested beginning on the third day of the school year. Students must submit all requests for a schedule adjustment prior to the sixth day of the school year. A schedule adjustment will be based on class availability, students' diploma type and course of study/academic and career plan.
- ✓ Schedule adjustments for the second semester should be minimal. Adjustments may be required if a student has failed a course the first semester and no longer meets the prerequisites for a scheduled class. Adjustments may also reflect the selections necessary for students to complete their academic and career plan goals.
- ✓ Students who pass a course may repeat the course, but duplicate credit will not be given.

## PARENT/TEACHER CONFERENCES

- ✓ Conferences will take place two times a year: midterm of each semester.

## RECOMMENDED TESTING FOR COLLEGE-BOUND STUDENTS

### PSAT - Preliminary SAT

Students benefit from practice in taking the test and can identify academic strengths and weaknesses while they have time to work to improve their scores.

Students in the tenth grade can get a “jump on college.” The test shows firsthand the kinds of reading, math, and writing skills needed to succeed in college. It also provides practice for college admissions tests.

Eleventh grade students can enter special scholarship competitions such as the National Merit Scholarship Qualifying Test. PSAT measures verbal and math reasoning skills and writing skills.

### SAT Reasoning Test

Eleventh and twelfth grade students should take the SAT Reasoning Test, which measures critical reading, mathematics, and writing skills. A student should begin taking the test by the spring of the eleventh grade and may repeat the test several times. Most colleges use the highest critical reading, math, and writing scores obtained, even if the three sub-scores were earned on separate days.

The SAT tests are given several times each year at local high schools. Students must register about four weeks in advance of the test. Students may register on-line at [www.collegeboard.com](http://www.collegeboard.com). On-line registration allows students to learn whether space exists for testing at their preferred test center. If students are unable to register on-line, registration bulletins for the test are available in the counseling office

Free study and preparation materials are available at [www.collegeboard.com](http://www.collegeboard.com) and from the high school counseling office.

### SAT Subject Tests

Subject tests measure students’ knowledge and skills in a particular subject and their ability to apply that knowledge. Tests are offered in many subjects. The test should be taken towards the end of the completion of a subject. For example, if a student is completing Chemistry in Grade 11, he/she should take the SAT Subject Test in Chemistry in the spring of the eleventh grade.

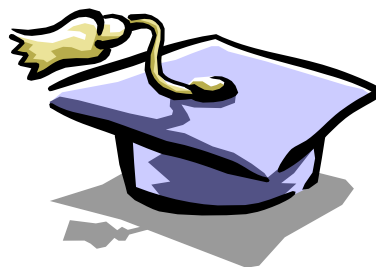
Not all colleges require SAT Subject Tests; generally, the most competitive schools request these tests. Students should check test requirements with colleges in which they have interest. Students may register to take up to three tests in one day.

Registration materials are available in the counseling office. “SAT Subject Text Preparation Booklet,” a free booklet, available in the guidance office and on-line at [www.collegeboard.com](http://www.collegeboard.com), provides information about the test and sample test questions.

### ACT – American College Test

The ACT measures academic achievement in English, mathematics, reading, and science reasoning. Students may choose to take the writing subtest (students should check with their colleges of interest to see if the writing test is required). Most college accept ACT and/or SAT scores. Registration materials and study guides are available on-line at [www.actstudent.org](http://www.actstudent.org) and in the counseling office.

Some students find it helpful to take both the ACT and SAT since colleges will generally use the best scores.



**AP – Advanced Placement**

AP courses, taught by dedicated and committed high school teachers, lay the groundwork for students to succeed on AP examinations. In Winchester, all students enrolled in AP classes are expected to take AP examinations. If students are enrolled in AP courses, costs for the examinations for those AP subjects are paid by the school system.

An AP class is challenging and stimulating, and students are required to give more time, to perform more work, and will explore the subject in greater depth. Careful consideration must be given in selecting AP classes because they are designed for students who have mastered the basic skills and are able to learn independently. Please see specific course descriptions for detailed information.

AP examinations are given in the spring on nationally standardized dates and measure the student’s knowledge in specific subject areas.

Completion of these courses, with acceptable grades on AP exams, may lead to credit and/or advanced placement at colleges and universities across the United States.

<b>Gain the Edge in College Preparation</b>	<b>Stand Out in the College Admissions Process</b>	<b>Broaden Intellectual Horizons</b>
Get a head start on college-level work.	Demonstrate maturity and readiness for college.	Explore the world from a variety of perspectives.
Improve writing skills and sharpen problem-solving techniques.	Show willingness to push self academically.	Study subjects in greater depth and detail.
Develop the study habits necessary for tackling rigorous course work.	Emphasize commitment to academic excellence.	Assume the responsibility of reasoning, analyzing and understanding for one’s own self.

**GRADING SCALE**

- A – Superior (94-100)**
- B – Good (86-93)**
- C – Satisfactory (78-85)**
- D – Poor (70-77)**
- F – Failing (Below 70)**



# OTHER OPPORTUNITIES

## DUAL ENROLLMENT - DUAL CREDIT

Students at John Handley High School may earn college credit at Lord Fairfax Community College, James Madison University or Shenandoah University through dual enrollment and/or dual credit. The purpose of these programs is to provide a wider range of course options for our students and to avoid unnecessary duplication of programs. Dual enrollment/dual credit allows motivated students to pursue rigorous and accelerated educational opportunities that enable them to accrue college credits.

**Students may not substitute required high school courses with a college course unless the high school course cannot be scheduled.** In all cases, the particular courses to be offered shall be determined through the mutual agreement of the Winchester Public Schools and the respective college.

College credits will be awarded according to the college catalog. High school credit will be awarded according to the guidelines established by the Virginia Department of Education, i.e., **six college credits are equivalent to one high school credit.**

Course fees will be assessed by the college to the student and payment responsibility rests solely with the student and the family.

## DUAL ENROLLMENT/DUAL CREDIT

arrangements may be formed in one of two ways:

1. With permission from a high school official, students may enroll in regularly scheduled college courses taught at the college. The student is responsible for scheduling college courses around their regular high school class schedule. Students earn college credit and may be awarded high school credit.
2. High school students may be enrolled in college level courses (approved by both the high school and the college) exclusively for high school students

taught at the high school. Student are awarded high school and college credit.

Dual enrollment course offerings may vary slightly from year to year. The following courses were offered as dual enrollment through LFCC during the 2010-11 school year:

AP US History, French IV, AP French Language, German IV, AP German Language, Spanish IV, AP Spanish Language, AP Spanish Literature, Calculus, AP Calculus AB, AP Statistics, AP Biology, AP Chemistry, CIS, Advanced CIS, Medical Systems Administration, Design/Multimedia/Web Technology, Adv. Design/Multimedia/Web Technology, AP English Language and Composition, AP English Literature and composition, Computer Systems Technology I and II, and Welding I.

## VIRTUAL HIGH SCHOOL

VHS is a non-profit collaborative of nearly 200 participating high schools offering semester online courses to high school students in 22 states and 8 countries. Students may take one or more high school classes online, entirely over the internet and earn credit. VHS courses are ones typically not offered in the local school division. A complete list of VHS course offerings is available in the Guidance Office.

## MOUNTAIN VISTA GOVERNOR'S SCHOOL

The mission of the Mountain Vista Governor's School (MVGS) is to present a research-based, technology-enhanced, integrated program in mathematics, science, and the humanities. The program will challenge students to reach their full potential as independent thinkers capable of assuming leadership roles in a constantly changing global society. MVGS serves 108 students from the region. Thirteen Handley students, grades 10-12, attend the Middletown, VA site located at Lord Fairfax Community College. Students participate in 4.5 hours of instruction each day at MVGS and return to Handley for afternoon coursework.



# CAREER AND TECHNICAL EDUCATION

Career and Technical Education offers rigorous programs of study for broad career areas based on 16 career clusters, or similar occupational groupings, that identify the knowledge and skills students need as they follow a pathway to their career and educational goals.

Career Clusters provide a framework for career development giving students the opportunity to take academic and technical classes relevant to their career goals. Within each of the 16 career clusters there are pathways that further define specific types of career opportunities they can pursue within that cluster.

## The 16 Career Clusters

**Agriculture, Food and Natural Resources:** The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.

**Architecture and Construction:**

Careers in designing, planning, managing, building and maintaining the built environment.

**Arts, AV Technology and Communications:**

Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

**Business, Management and Administration:**

Business Management and Administration careers encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operations.

**Education and Training:**

Planning, managing and providing education and training services, and related learning support services.

**Finance:**

Planning, services for financial and investment planning, banking, insurance, and business financial management.

**Government and Public Administration:**

Executing governmental functions to include Governance; National Security; Foreign Service; Planning; Revenue and Taxation; Regulation; and Management and Administration at the local, state, and federal levels.

**Health Science:**

Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

**Hospitality and Tourism:**

Hospitality & Tourism encompasses the management, marketing and operations of restaurants and other foodservices, lodging, attractions, recreation events and travel related services.

**Human Services:**

Preparing individuals for employment in career pathways that relate to families and human needs.

**Information Technology:**

Building Linkages in IT Occupations Framework: For Entry Level, Technical, and Professional Careers Related to the Design, Development, Support and Management of Hardware, Software, Multimedia, and Systems Integration Services.

**Law, Public Safety, Corrections and Security:**

Planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.

**Manufacturing:**

Planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

**Marketing, Sales and Service:**

Planning, managing, and performing marketing activities to reach organizational objectives.

**Science, Technology, Engineering and Mathematics:**

Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.

**Transportation, Distribution and Logistics:**

Planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

# DIPLOMA PROGRAMS

John Handley High School offers six diploma programs to meet the goals of the individual student. The diploma programs are the **Advanced Studies Diploma**, **Advanced Technical Diploma**, the **Standard Diploma**, the **Standard Technical Diploma**, the **Modified Standard Diploma**, and a **Special Diploma**. Students with Individual Education Plans (IEP) who do not meet the requirements for a diploma may receive a **Certificate of Program Completion**. Regular education students who have successfully completed course work for a diploma, but who have not met verified credit requirements on the state SOL tests, may also receive a **Certificate of Program Completion**.

## ADVANCED STUDIES DIPLOMA

Discipline Area	Standard Credits Effective with ninth grade classes through 2010- 2011	Standard Credits Revised Effective with ninth graders beginning 2011-2012	Verified Credits
English	4	4	2
Mathematics [Note 1]	4	4	2
Laboratory Science [Note 2]	4	4	2
History & Social Sciences [Note 3]	4	4	2
Foreign Languages [Note 4]	3	3	
Health	1	1	
Physical Education	1	1	
Fine Arts or Career & Technical Education	1	1	
Economics and Personal Finance		1	
Electives	2	3	
Student Selected Test			1
<b>Total</b>	<b>24</b>	<b>26</b>	<b>9</b>

Note 1:

**For the 2010-2011 academic year only:** Courses completed to satisfy this requirement shall be at or above the level of algebra and shall include at least three different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II.

**Effective with the 2011-2012 academic year and beyond:** Courses completed to satisfy this requirement shall include at least three different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II.

Note 2:

Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics.

Note 3:

Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either world history or geography or both

Note 4:

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

# PROGRAMS DE DEPLOMA

La Escuela Secundaria John Handley ofrece seis programas de diploma para satisfacer las metas de cada estudiante. Los programas de diploma son: **Diploma de Estudios Avanzados, Diploma Técnico Avanzado, Diploma Estándar, Diploma Técnico Estándar, Diploma Estándar Modificado, y Diploma Especial.** Los estudiantes que tienen un Plan Individualizado de Educación (IEP), los cuales no cumplen con los requisitos para un diploma pueden recibir un **Certificado de Conclusión del Programa.** Los estudiantes de educación regular que han completado los cursos requeridos para un diploma, pero no pasan los exámenes estatales (SOL) también pueden recibir un **Certificado de Conclusión del Programa.**

## PROGRAMA AVANZADO DE ESTUDIOS

Area de Instrucción	Créditos Estándar Entra en vigencia en 9no grado el año 2010 - 2011	Créditos Estándar Revisados Entra en vigencia en 9no grado a partir del año 2011 - 2012	Créditos verificados
Inglés	4	4	2
Matemáticas [Nota 1]	4	4	2
Laboratorio de Ciencias [Nota 2]	4	4	2
Historia y Estudios Sociales [Nota 3]	4	4	2
Idiomas Extranjeros [Nota 4]	3	3	
Salud	1	1	
Educación Física	1	1	
Bellas Artes u Orientación Académica y Tecnología	1	1	
Economía y Finanzas Personales		1	
Electivas	2	3	
Examen seleccionado por el estudiante			1
<b>Total</b>	<b>24</b>	<b>26</b>	<b>9</b>

Nota 1:

**Solamente para el año académico 2010-2011:** los cursos completados para satisfacer los requerimientos deberán estar en o sobre el nivel de algebra y deberán incluir por lo menos tres cursos diferentes seleccionados entre:

Algebra I, Geometría, Algebra II u otros cursos de matemáticas que están por encima del nivel de Algebra II

**Entra en vigencia a partir del año académico 2011-2012:** los cursos completados para satisfacer este requerimiento

deberán incluir por lo menos tres cursos diferentes seleccionados entre: Algebra I, Geometría, Algebra II u otros cursos de matemáticas que están por encima del nivel de Algebra II

Nota 2:

Los cursos completados para satisfacer este requerimiento deberán incluir por lo menos tres disciplinas diferentes de ciencias seleccionadas entre: ciencias de la tierra, biología, química o física.

Nota 3:

Los cursos completados para satisfacer este requerimiento deberán incluir Historia de los Estados Unidos y Virginia, Gobierno de los Estados Unidos y Virginia y dos cursos ya sea de historia universal o geografía o ambos

Nota 4:

Los cursos completados para satisfacer este requerimiento deberán incluir tres años de un idioma o dos años de dos Idiomas

# ADVANCED TECHNICAL DIPLOMA

For 9<sup>th</sup> graders beginning 2011-2012

Discipline Area	Standard Units	Verified Credits
English	4	2
Mathematics [Note 1]	4	2
Laboratory Science [Note 2]	4	2
History & Social Science [Note 3]	4	2
Health	1	
Physical Education	1	
Foreign Language [Note 4]	3	
Fine Arts or Career and Technical Education	1	
Economics and Personal Finance	1	
Career and Technical Education [Note 5]	3	
Electives		
Student Selected		1
<b>Total</b>	<b>26</b>	<b>9</b>

**Note 1:**

Courses completed to satisfy this requirement shall include at least three different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II.

**Note 2:**

Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics.

**Note 3:**

Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either world history or geography or both.

**Note 4:**

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

**Note 5:**

Courses completed to satisfy this requirement must include a career concentration/program sequence.

# DIPLOMA TECNICO AVANZADO

Area de Instrucción	Unidades estándar	Créditos verificados
Inglés	4	2
Matemáticas (Nota 1)	4	2
Laboratorio de Ciencias (Nota 2)	4	2
Historia y Estudios Sociales (Nota 3)	4	2
Salud	1	
Educación Física	1	
Idioma Extranjero (Nota 4)	3	
Bellas Artes u Orientación		
Académica y Tecnología	1	
Economía y Finanzas Personales	1	
Orientacion Academica y Tecnología	3	
Electivas		
Selección del estudiante		1
<b>Total</b>	<b>26</b>	<b>9</b>

**Nota 1:**

Los cursos completados para satisfacer este requerimiento deberán incluir por lo menos tres cursos diferentes seleccionados entre: Algebra I, Geometría, Algebra II u otros cursos de matemáticas sobre el nivel de Algebra II

**Nota 2:**

Los cursos completados para satisfacer este requerimiento deberán incluir por lo menos tres disciplinas diferentes de ciencias seleccionadas entre: ciencias de la tierra, biología, química o física.

**Nota 3:**

Los cursos completados para satisfacer este requerimiento deberán incluir Historia de los Estados Unidos y Virginia, Gobierno de los Estados Unidos y Virginia y dos cursos ya sea de historia universal o geografía o ambos

**Nota 4:**

Los cursos completados para satisfacer este requerimiento deberán incluir tres años de un idioma o dos años de dos idiomas

**Nota 5:**

Los cursos completados para satisfacer este requerimiento deben incluir una secuencia de concentración/programa de orientacion academica.

# STANDARD DIPLOMA

Discipline Area	Standard Credits Effective with ninth grade classes through 2010- 2011	Standard Credits Effective with ninth graders beginning 2011-12	Verified Credits
English	4	4	2
Mathematics [Note 1]	3	3	1
Laboratory Science [Note 2]	3	3	1
History & Social Sciences [Note 3]	3	3	1
Health	1	1	
Physical Education	1	1	
Fine Arts or Career & Technical Education	1		
Foreign Language, Fine Arts or Career & Technical Education [Note 4]		2	
Economics and Personal Finance		1	
Electives [Note 5]	6	4	
Student Selected Test			1
<b>Total</b>	<b>22</b>	<b>22</b>	<b>6</b>

**Note 1:**

**For the 2010-2011 academic year only:** Courses completed to satisfy this requirement shall be at or above the level of algebra and shall include at least two course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of algebra and geometry.

**Effective with the 2011-2012 academic year and beyond:** Courses completed to satisfy this requirement shall include at least two different course selections from among: Algebra I, Geometry, Algebra, Functions, and Data Analysis, Algebra II, or other mathematics courses above the level of Algebra II.

**Note 2:**

Courses completed to satisfy this requirement shall include course selections from at least two different science disciplines: earth sciences, biology, chemistry, or physics.

**Note 3:**

Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either world history or geography or both.

**Note 4:**

Courses to satisfy this requirement shall include at least two sequential electives.

**Note 5:**

**Effective with the 2011-2012 academic year and beyond:** Credits earned for this requirement shall include one credit in fine or performing arts or career and technical education.

# DIPLOMA ESTANDAR

Área de Instrucción	Créditos estándar Entra en vigencia en 9no grado el año 2010 - 2011	Créditos estándar Entra en vigencia en 9no grado a partir del año 2011 - 2012	Créditos verificados
Inglés	4	4	2
Matemáticas [Nota 1]	3	3	1
Laboratorio de Ciencias [Nota 2]	3	3	1
Historia y Estudios Sociales [Nota 3]	3	3	1
Salud	1	1	
Educación Física	1	1	
Bellas Artes u Orientación Académica y Tecnología	1		
Idioma Extranjero, Bellas Artes u Orientación Académica y Tecnología [Nota 4]		2	
Economía y Finanzas Personales		1	
Electivas [Nota 5]	6	4	
Examen seleccionado por el estudiante			1
<b>Total</b>	<b>22</b>	<b>22</b>	<b>6</b>

Nota 1:

**Solamente para el año académico 2010-2011:** los cursos completados para satisfacer este requerimiento deberán estar al o sobre el nivel de álgebra y deberán incluir por lo menos dos cursos seleccionados entre: Álgebra I, Geometría, Álgebra II u otros cursos de matemáticas que están por sobre el nivel de álgebra y geometría.  
**Entra en vigencia a partir del año académico 2011-2012:** los cursos completados para satisfacer este requerimiento deberán incluir por lo menos dos cursos diferentes seleccionados entre: Álgebra I, Geometría, Álgebra, Funciones y Análisis de Datos, Álgebra II u otros cursos de matemáticas que están sobre el nivel de Álgebra II

Nota 2:

Los cursos completados para satisfacer este requerimiento deberán incluir cursos seleccionados de por lo menos dos disciplinas diferentes de ciencias: ciencias de la tierra, biología, química o física

Nota 3:

Los cursos completados para satisfacer este requerimiento deberán incluir Historia de los Estados Unidos y Virginia, Gobierno de los Estados Unidos y Virginia y un curso ya sea de historia universal o geografía o ambos

Nota 4:

Los cursos para satisfacer este requerimiento deberán incluir por lo menos dos electivas secuenciales.

Nota 5:

**Entra en vigencia a partir del año académico 2011-2012:** los créditos obtenidos para este requerimiento deberán incluir un crédito en Bellas Artes o Artes Escénicas u Orientación Académica y Tecnología

# STANDARD TECHNICAL DIPLOMA

For 9<sup>th</sup> graders beginning 2011-2012

Discipline Area	Standard Credits	Verified Credits
English	4	2
Mathematics [Note 1]	3	1
Laboratory Science [Note 2]	3	1
History & Social Science [Note 3]	3	1
Health & Physical Education	1	
Physical Education	1	
Fine Art or Foreign Language	1	
Economics and Personal Finance	1	
Career and Technical Education [Note 4]	4	
Electives	1	
Student Selected		1
<b>Total</b>	<b>22</b>	<b>6</b>

**Note 1:**

Courses completed to satisfy this requirement shall include at least two different course selections from among: Algebra I, Geometry, Algebra, Functions, and Data Analysis, Algebra II, or other mathematics courses above the level of Algebra II.

**Note 2:**

Courses completed to satisfy this requirement shall include course selections from at least two different science disciplines: earth sciences, biology, chemistry, or physics.

**Note 3:**

Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either world history or geography or both.

**Note 4:**

Courses completed to satisfy this requirement must include a career concentration/program sequence.



# DIPLOMA TECNICO ESTANDAR

Area de Instrucción	Créditos Estándar	Créditos Verificados
Inglés	4	2
Matemáticas [Nota 1]	3	1
Laboratorio de Ciencias [Nota 2]	3	1
Historia y Estudios Sociales [Nota 3]	3	1
Salud y Educación Física	1	
Educación Física	1	
Bellas Artes o Idioma Extranjero	1	
Economía y Finanzas Personales	1	
Orientación Académica y Tecnología [Nota 4]	4	
Electivas	1	
Selección del estudiante		1
<b>Total</b>	<b>22</b>	<b>6</b>

**Nota 1:**

Los cursos completados para satisfacer este requerimiento deberán incluir por lo menos dos cursos diferentes seleccionados entre: Álgebra I, Geometría, Funciones, y Análisis de Datos, Álgebra II u otros cursos de matemáticas sobre el nivel de Álgebra II

**Nota 2:**

Los cursos completados para satisfacer este requerimiento deberán incluir por lo menos dos disciplinas diferentes de ciencias seleccionadas entre: ciencias de la tierra, biología, química o física.

**Nota 3:**

Los cursos completados para satisfacer este requerimiento deberán incluir Historia de los Estados Unidos y Virginia y Gobierno de los Estados Unidos y Virginia y un curso ya sea de historia universal o geografía o ambos

**Nota 4:**

Los cursos completados para satisfacer este requerimiento deben incluir una secuencia de concentración/programa de orientación académica.

## DIPLOMA SEALS

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

1. Students who complete the requirements for an Advanced Studies Diploma or Advanced Technical 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 shall receive the Governor's Seal on the diploma.
2. Students who complete the requirements for a Standard Diploma, Standard Technical Diploma, Advanced Studies Diploma or Advanced Technical Diploma with an average grade of "A" shall receive a Board of Education Seal on the diploma.
3. The Board of Education's Career and Technical Education Seal will be awarded to students who earn a Standard Diploma, Standard Technical Diploma, Advanced Studies Diploma or Advanced Technical 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.
4. The Board of Education's Seal of Advanced Mathematics and Technology will be awarded to students who earn either a Standard Diploma, Standard Technical Diploma, Advanced Studies Diploma or Advanced Technical Diploma and (i) satisfy Virginia Board of Education 19 REGULATIONS ESTABLISHING STANDARDS FOR ACCREDITING PUBLIC SCHOOLS IN VIRGINIA – JULY 31, 2009 8 VAC 20-131 all of the mathematics requirements for the Advanced Studies Diploma or Advanced Technical Diploma (four units of credit including Algebra II; 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.
5. The Board of Education's Seal for Excellence in Civics Education will be awarded to students who earn either a Standard Diploma, Standard Technical Diploma, Advanced Studies Diploma, or Advanced Technical 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.

# MODIFIED STANDARD PROGRAM OF STUDIES

The Individual Education Program (IEP) Team shall determine eligibility and participation in the modified standard diploma.

Discipline Area	Standard Credits	Verified Credits
English [Note 1A and 1B]	4	1
Mathematics [Note 2A and 2B]	3	1
Laboratory Science [Note 3]	2	
History & Social Sciences [Note 4]	2	
Health	1	
Physical Education	1	
Fine Arts or Career & Technical Education	1	
Electives [Note 5]	6	
<b>Total</b>	<b>20</b>	<b>2</b>

**Note 1A:**

Courses completed to satisfy this requirement may include English I, English II, and/or English 9, 10, 11, 12.

**Note 1B:**

Verified credit may be earned by passing the 8th Grade English Reading SOL or the 11th grade English Reading EOC test.

**Note 2A:**

Courses completed to satisfy this requirement shall include content from among applications of algebra, geometry, personal finance and statistics.

**Note 2B:**

Verified credit may be earned by passing the 8th Grade Math SOL or other Math EOC SOL at or above the level of Algebra I.

**Note 3:**

Courses completed to satisfy this requirement shall include content from at least two of the following disciplines: earth science, biology, chemistry or physics.

**Note 4:**

Courses completed to satisfy this requirement shall include one unit of credit in US and Virginia History and one unit of credit in US and Virginia Government.

**Note 5:**

Courses to satisfy this requirement shall include at least two sequential electives in the same manner required for the Standard Diploma

# PROGRAMA DE ESTUDIOS ESTANDAR MODIFICADO

Área de Instrucción	Créditos estándar	Créditos verificados
Inglés [Nota 1A y 1B]	4	1
Matemáticas [Nota 2A y 2B]	3	1
Laboratorio de Ciencias [Nota 3]	2	
Historia y Estudios Sociales [Nota 4]	2	
Salud	1	
Educación Física	1	
Bellas Artes u Orientación Académica y Tecnología	1	
Electivas [Nota 5]	6	
<b>Total</b>	<b>20</b>	<b>2</b>

**Nota 1A:**

Los cursos completados para satisfacer este requerimiento podrían incluir Inglés I, Inglés II y/o Inglés 9, 10, 11 12.

**Nota 1B:**

El crédito verificado podría ser obtenido al aprobar el SOL de lectura de ingles de 8vo grado u otro EOC SOL de lectura de ingles del 11vo grado

**Nota 2A:**

Los cursos completados para satisfacer este requerimiento deberán incluir contenido de entre aplicaciones de álgebra, geometría , finanzas personales y estadísticas.

**Nota 2B:**

Crédito verificado podría ser obtenido al aprobar el SOL de matemáticas del 8vo grado u otro EOC SOL de matemáticas al nivel o sobre el nivel de Algebra I

**Nota 3:**

Los cursos completados para satisfacer este requerimiento deberán incluir contenido de por lo menos dos de los siguiente: ciencias de la tierra, biología, química o física

**Nota 4:**

Los cursos completados para satisfacer este requerimiento deberán incluir una unidad de crédito en historia de los Estados Unidos y Virginia y una unidad de crédito en Gobierno de los Estados Unidos y Virginia

**Nota 5:**

Los cursos para satisfacer este requerimiento deberán incluir por los menos dos electivas secuenciales de la misma manera que se requiere para el Diploma Estándar

# ELECTIVES

<b>Career and Technical Electives</b>	<b>Fine Art Electives</b>	<b>Other Electives/Foreign Language</b>
Accounting	3-Dimensional Design I	AP French Language
Advanced CIS	AP Studio Art: 2-D Design	AP German Language
Advanced Design/Multimedia/Web Technology	AP Studio Art: 3-D Design	AP Latin Vergil
Advanced Marketing	Art Foundations	AP Spanish Language
Architectural Drawing and Design	Creative Writing/Miscellanea	AP Spanish Literature
Computer Information Systems	Drawing and Painting I	French I, II, III, IV
Computer Math	Drawing and Painting II	German I, II, III, IV
Computer Networking and Hardware Operations I-IV	Forensics and Debate	JMU Intro. to Psychology
Computer Systems Technology I/II	Gavel	Kinesiology Elective
Construction Technology/Building Trades I	Great Works	Latin I, II, III
Cooperative Office Education (COE)	Guitar School I	Psychology
Design/Multimedia/Web Technology	Guitar School II	Spanish I, II, III, IV
Economics and Personal Finance	Handlian Yearbook Staff	Spanish for Native Speakers
Electronic Systems I/II	Hilltop Singers	
Imaging Technology	Improvisation	
JAVA Programming	Marching/Symphonic Band	
Keyboarding Applications	Show Choir	
Manufacturing Systems/Welding I	Speech and Drama	
Marketing	Stage Band	
Marketing Co-op		
Materials and Processes Technology		
Medical Systems Administration		
Principals of Business and Marketing		
Sports and Entertainment Marketing		
Technical Drawing and Design		
Video and Media Technology		

# ART

**ART FOUNDATIONS** Course No. 9121  
**Elective** 18 weeks  
1 Credit

This course is offered to all students who have not taken Art at the high school level. Students will explore a wide variety of artistic methods and media with an emphasis on the elements and principles of design. Drawing is stressed in the preparation for each project in the course. Composition, design, ceramics, sculpture, and printmaking techniques as well as the study of art history will be included.

**DRAWING & PAINTING I**  
**Elective** Course No. 9120  
**1 Credit** 18 weeks  
**Prerequisite: Art Foundations**

Drawing & Painting I exposes students to a full range of aesthetic and intellectual pedagogy. Students investigate various types of media including charcoal, pastel, colored pencil, graphite, watercolor, and acrylic paint. Through research, experimentation, and critique, they master basic drawing and painting skills and begin to address art's relationship to contemporary issues and ideas.

**THREE-DIMENSIONAL DESIGN I**  
**Elective** Course No. 9161  
**1 Credit** 18 weeks  
**Prerequisite: Art Foundations**

This course will give the student a foundation in both the traditional and contemporary concepts of sculpture; to develop a thinking and working vocabulary in the language of form and space; to acquire the skills to fabricate, carve, model and cast the forms that a sculptor develops in the creation of art. Three-Dimensional Design I explores woodworking, stone carving, sheet-metal fabrication, welding, figure modeling, mold-making, and casting. The Sculpture program is enhanced by lectures, workshops and classes taught by recognized visiting artists. The program covers a broad range of technical areas and conceptual thinking.

**IMAGING TECHNOLOGY** Course No. 8455  
**Elective: Grades 10-12** 18 weeks  
**Prerequisite: Art Foundations** 1 Credit

This course is a comprehensive exploration into the visual aspects of B&W photography and explores a variety of ways to create high quality black and white photographs using Adobe Photoshop software with digital cameras. The course covers composition, POV, perspective, the frame, the shutter and the lens's ability to isolate subject matter through depth of field. You will learn how to read a photograph, know something of photography's visual history and how to see and make photographs of your own world and experiences. Among the topics covered are: using digital cameras for black and white, scanning black and white film converting color images to black and white, the Zone System for digital photography, optimizing image adjustments in Photoshop, color toning, (sepia, selenium, split-toning, duotones) for black and white images, and printing methods for both neutral and toned photographs, The course will consist of field trips, computer lab hands-on demonstrations, and discussions of student work.

**VIDEO AND MEDIA TECHNOLOGY** Course No. 8497  
**Elective: Grades 10-12** 18 weeks  
**1 Credit**  
**Prerequisite: Complete Application and Interview by instructor**

This course offers students an opportunity to study all aspects of video and media production, from planning and writing for production to operating studio and editing equipment. Students practice various methods of gathering news and information from individuals, research, and online resources. In addition, students are introduced to analog and digital principles of film production. The VMT class is unlike any other elective. Student must apply to VMT and conduct an interview with the instructor. The perfect candidate is energetic, upbeat and possesses the ability to work well with others. The ability to write and read well is a must and they should be comfortable speaking in front of a large audience.

**DRAWING & PAINTING II****Elective  
1 Credit****Course No. 9140  
18 weeks  
Art Fee****Prerequisite: Drawing & Painting I**

This course continues to develop drawing skills from Drawing & Painting I. Through traditional subject matter, students explore a range of drawing materials and techniques. Composition and rendering skills are emphasized, various wet and dry media are used, and color is introduced. Students will begin to incorporate the use of technology into their illustrations.

**AP STUDIO ART 3-D DESIGN****Elective: Grades 11-12  
1 Credit****Course No. 9149  
18 weeks****Prerequisite: Art Foundations, 1 other Art  
Course & Portfolio review by instructor**

The AP Studio Art 3-D Design course is for highly motivated students seriously interested in art. In this course, you will pursue the investigation of the three-dimensional form. There is no desired or dictated method of approaching the three dimensional forms. It is important that you learn to express yourself in your own personal style. Critiques with peers and teacher will be an ongoing process and form part of the assessment grade for the course. Other assessments will be formative and summative as requirements are completed. The 3-D portfolio contains three sections: Quality, Concentration, and Breadth. In the Quality section, you will submit five examples of your best work. You do not need to show a variety of techniques or approaches, just your best work. The Concentration section is a planned investigation of an idea of personal interest to you. In this section, you will develop a body of work that grows from this investigation. Eighteen to 24 Ceramics pieces are required to complete the Quality, Concentration and Breadth sections of the portfolio. You may pick up a copy of the entrance portfolio information from the instructor in April. The entrance portfolio must be submitted prior to the end of the current school year.

**AP STUDIO ART 2-D DESIGN****Elective: Grades 11-12  
1 Credit****Course No. 9148  
18 weeks****Prerequisite: Art Foundations, 1 other Art  
Course & Portfolio review by instructor**

The Course is designed as a performance based studio experience for the dedicated advanced art student who wishes to continue a rigorous study of 2-D art. The AP Studio Art 2-D course consists of further investigating various forms of expression and techniques using the principles and elements of design. Students will develop mastery in concept, composition, and execution. This course provides direction for the highly motivated art student to take the AP® Studio Art 2-D Design Exam and earn college credit. The 2-D portfolio contains three sections: Quality, Concentration, and Breadth. In the Quality section, you will submit five examples of your best work. You do not need to show a variety of techniques or approaches, just your best work. The Concentration section is a planned investigation of an idea of personal interest to you. In this section, you will develop a body of work that grows from this investigation. You must submit 12 pieces of work in this section. In the Breadth section, you must document your experience with a variety of concepts and approaches that demonstrate your abilities and versatility with techniques, problem solving, and ideation. You may pick up a copy of the entrance portfolio information from the instructor in April. The entrance portfolio must be submitted prior to the end of the current school year.

# BUSINESS/MARKETING

Equal opportunities in career and technical education programs have been provided to persons without discrimination because of race, gender, religious preference, color, national origin, and/or disability.

## **ECONOMICS AND PERSONAL**

**FINANCE** **Course No. 6120**

**18 weeks** **1 credit**

**Required: Class of 2015**

**Elective: Classes of 2012-2014**

**Recommended Grades 10, 11, 12**

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 will also study basic occupational skills and concepts in preparation for entry-level employment in the field of finance. The course incorporates all economics and financial literacy objectives included in the *Code of Virginia* §22.1-200-03B. *The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.*

## **PRINCIPLES OF BUSINESS AND**

**MARKETING** **Course No. 6115**

**Elective: Grade 9 or 10** **18 weeks**

**1 credit**

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

Students will create and present projects throughout the course and will be responsible for identifying and discussing current events and trends in the business world.

## **KEYBOARDING**

**APPLICATIONS**

**Course No. 6152**

**Elective**

**18 weeks**

**1 credit**

Students will use word processing software to develop touch keyboarding skills, to understand correct manipulation of the keyboard, to increase computer literacy, and to improve language skills. Students are introduced to the Information Processing Cycle, Windows, and File Management. Students will develop speed and accuracy through the production of documents. The focus of the course will be using word processing skills to create columns, letters, memos, tables, reports, graphics, and research using the Internet.

## **COMPUTER INFORMATION**

**SYSTEMS**

**Course No. 6612**

**Elective**

**18 weeks**

**1 credit**

**Prerequisite: Keyboarding at 25 gwam**

This course is recommended for all students whether they plan to enter the work force or enter college upon graduation. Students are introduced to the use of Microsoft Office<sup>®</sup>, which includes word processing, spreadsheets, databases, and graphics. Students apply problem-solving skills to complete integrated activities on the computer. This course prepares students for the Microsoft Certified Application Specialist (MCAS) proficiency exams. Students may earn one elective verified credit if they pass two MCAS tests and pass the course. *Students enrolled in this course are eligible to dual-enroll in AST 141 through Lord Fairfax Community College. The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.*



**ADVANCED COMPUTER INFORMATION SYSTEMS**  
**Course No. 6613**  
**Elective: Grades 10-12**      **18 weeks**  
**1 credit**  
**Prerequisite: Computer Information Systems**

Students build on skills learned in Computer Information Systems to create advanced documents prepared in Word, Excel, Access, and PowerPoint. Desktop Publishing will be taught using Microsoft Publisher®. Instruction and use of a digital camera and a scanner will allow students to enhance documents and presentations. Using the Internet, students will learn to create Web pages using a programming language. This course prepares students for the Microsoft Certified Application Specialist (MCAS) proficiency exams. Students may earn one elective verified credit if they pass two MCAS tests and pass the course. *Students enrolled in this course are eligible to dual-enroll through Lord Fairfax Community College. The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.*

**MEDICAL SYSTEMS ADMINISTRATION**  
**Course No. 6730**  
**Elective: Grades 11-12**      **18 weeks**  
**1 credit**  
**Prerequisite: Keyboarding at 20 gwam**

Students wishing to gain employment in the medical field may take this course to learn how to function effectively in a medical office environment by performing computerized account management activities using medical account management software. Along with medical terminology and human anatomy and physiology, units of instruction will include customer service activities, managing office activities, legal and business ethics, and employability skills. Students will be exposed to real-world situations during the year from representatives from the business community and through field trips. *Students enrolled in this course are eligible to dual-enroll in HIM 111 through Lord Fairfax Community College. The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.*

**DESIGN, MULTIMEDIA, WEB TECHNOLOGIES**  
**Course No. 6630**  
**1 credit**      **18 weeks**  
**Elective: Grades 10-12**  
**Prerequisite: Keyboarding at 20 gwam**

Students develop proficiency in creating Desktop Publications, multimedia presentation/projects, and Web sites using industry standard application software. Students incorporate principles of layout and design in completing publications and projects. Students design portfolios that may include business cards, newsletters, mini-pages, Web pages, multimedia presentations/projects, calendars, and graphics. Completion of this course may prepare students for industry certifications. *Students enrolled in this course are eligible to dual-enroll through Lord Fairfax Community College. The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.*

**ADVANCED DESIGN, MULTIMEDIA, WEB TECHNOLOGIES**  
**Course No. 6631**  
**Elective: Grade 11 or 12**      **18 weeks**  
**1 credit**  
**Prerequisite: Design, Multimedia, Web Technologies**

Students develop advanced skills in creating interactive media, Web sites, and publications for print and electronic distribution. Students work with sophisticated hardware and software, applying skills learned to real-world projects. This course may assist the student in preparing for the certification examinations, national assessments, or licensure examinations approved by the Virginia Board of Education. *Students enrolled in this course are eligible to dual-enroll through Lord Fairfax Community College. The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.*

**ACCOUNTING**  
**Elective: Grades 10-12**  
**1 credit**

**Course No. 6320**  
**18 weeks**

Students study the basic principles, concepts, and practices of the accounting cycle for a service business 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. *The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.*



**COOPERATIVE OFFICE**  
**EDUCATION (COE) Course No. 9697/6798**  
**Elective: Grades 11-12**  
**1 credit**

**36 weeks**

**Prerequisite: Enrollment in specific Business course(s)**

COE is available to juniors and seniors enrolled in Finance, Computer Information Systems, Advanced Computer Information Systems, Web/Desktop/Multimedia Presentations, Accounting, Advanced Accounting, and Medical Systems Administration. This course offers a smooth transition from the classroom to the workplace by combining and coordinating classroom study with on-the-job training. Students receive instruction from business professionals who serve as training sponsors. This on-the-job training, with competent supervision, provides an excellent learning experience for students. The COE Coordinator places students in jobs in business-related fields. The job site must be one where students work in an office environment. Applications for the COE program are available from any business teacher.



**MARKETING** **Course No. 8120**  
**Elective: Grades 10-12** **18 weeks**  
**1 credit**

Students examine activities in marketing and business important for success in marketing employment and postsecondary education. Students will learn how products are developed, branded, and sold to businesses and consumers. Students will analyze industry trends and gain hands-on experience in the marketing of goods, services, and ideas. Topics will include professionalism in the workplace, product planning and positioning, promotion, pricing, selling, economic issues, and the impact of technology on the marketplace. This course reinforces mathematics, science, English, and history/social science Standards of Learning (SOL). Computer/technology applications and DECA activities enhance the course. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events. The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

**ADVANCED**  
**MARKETING** **Course No. 8130**  
**Elective: Grade 11-12** **18 weeks**  
**Prerequisite: Marketing** **1 credit**

Students build on knowledge gained in a prior Marketing course. Students participate in supervisory and management activities focusing on the marketing mix, purchasing, financing, human resources, global marketing, pricing, and emerging technologies. Students will prepare for advancement in marketing careers and postsecondary education. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events. The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved marketing position with continuing supervision throughout the school year.

**MARKETING COOPERATIVE**  
**EDUCATION** **Course No. 8133**  
**Elective: Grades 11-12** **36 weeks**  
**1 credit**  
**Prerequisite: Enrollment in Marketing or**  
**Advanced Marketing**

This elective is available to students enrolled in Marketing, Sports and Entertainment Marketing, or Advanced Marketing. Marketing Cooperative Education combines the classroom instruction with a minimum of 396 hours of supervised on-the-job training during the school year. The job site must be one where the student works in the areas of Distribution, Finance, Marketing Information Management, Product Service Management, Sales Promotion or Selling, or in a Sports/Entertainment related field.

**SPORTS AND ENTERTAINMENT**  
**MARKETING** **Course No. 8175**  
**Elective: Grade 10-12** **1 credit**  
**18 Weeks**

This introductory course helps students develop a thorough understanding of fundamental marketing concepts and theories as they relate to the sports, entertainment, and recreation industries. Students will investigate the components of branding, sponsorships and endorsements, as well as promotion plans needed for sports, entertainment and recreation events. The course also supports career development skills and explores career options. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course. The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

# ENGLISH

## **TRANSITIONAL LITERACY**

**Course No. 1517**

**Required for students who did  
not pass the 8<sup>th</sup> grade English SOL**

**18 weeks**

**1 credit**

A required course for incoming 9<sup>th</sup> graders who failed their 8<sup>th</sup> grade SOL reading test and read at least two grade levels below eighth grade based on their end of year Gates McGinitie test. This required course will be mandated as a first semester offering which will allow 9<sup>th</sup> graders to take English 9 second semester. Students will be graded on the regular John Handley High School grading scale. If they do not pass the class, they will still be enrolled in English 9 second semester, but perhaps in an inclusion class. We feel as if many failures are due to poor attendance so close watch will be kept on attendance and the teacher will work closely with the Student Support Specialist.

## **ENGLISH 9 Required 1 credit**

**Course No. 11303  
18 weeks**

Students will learn at an accelerated pace, engage in analytical reading and writing, and work on projects which encourage higher-order problem solving skills. Students will learn the process of research and create a research project.

## **ENGLISH 10 Required**

**Course No. 11403  
18 weeks**

**Prerequisite: English 9**

**1 credit**

Students will move at an accelerated pace, engage in analytical reading and writing, and work on projects which encourage higher-order problem solving. Students will continue the research process and create a research project.

## **ENGLISH 11 Required**

**Course No. 11501  
18 Weeks**

**Prerequisite: English 10**

**1 credit**

With an emphasis in a survey of American literature and preparation for the SOL tests in Reading/Literature and Research and Writing, students will learn oral communication skills, including persuasive speaking, job interview

skills, and effective communication for the workplace. Additionally, students will review

grammar, composition, syntax, and vocabulary. Using the writing process, students will write a creatively and analytically, and compose an analytical research paper which proves a point about established culture.

## **AP ENGLISH LANGUAGE AND COMPOSITION**

**36 weeks/alternating**

**Course No. 11503**

**Prerequisite: English 10**

**1 credit**

This course is based on the AP Language and Composition curriculum of the College Board. Students will be engaged in reading a variety of texts, including selections from the canon of American Literature and both pre-20<sup>th</sup> century and contemporary non-fiction. Instruction in composition will focus on the basic elements of rhetoric (writing with purpose, appealing to an audience, and creating effective structure and style) with specific instruction in argumentation and citing and quoting secondary sources. A research paper which conforms to the MLA format and a summer reading assignment of a minimum of three literary and non-fiction works are requirements. *Students may elect to dual enroll in the course through Lord Fairfax Community College.* Six college credits can be earned for ENG 111-112

## **ENGLISH 12**

**Course No. 11601**

**Required**

**18 weeks**

**Prerequisite: English 11 or**

**1 credit**

**AP English Language and  
Composition**

The main emphasis of the course is a survey of British literature. Students will learn oral communication skills needed in the work place such as impromptu speaking, group problem-solving strategies, and formal presentations. Students will use the writing process to create essays, resumes and evaluations. Students will write creatively and analytically, and compose an analytical research paper which proves a point about established culture.

**AP ENGLISH LITERATURE AND COMPOSITION**

**18 weeks** **Course No. 11603**

**Prerequisite: English 11 or AP English Language and Composition** **1 credit**

accountable for a minimum of 3 literary works for summer reading. *Students may elect to dual enroll in this course through Lord Fairfax Community College.* Three college credits can be earned for ENG 243

This course is based on the AP curriculum suggested by the College Board as well as the British Literature course description at LFCC. Students engage in the intensive study of literary works, the study and practice or writing about literary works; they will continue writing essays in exposition and argument. Students will be

**\*\*\*ENGLISH ELECTIVES\*\*\***

**LITERACY COURSE III** **Course No. 1518**  
**Elective: Grades 10-12** **18 Weeks**  
**1 credit**

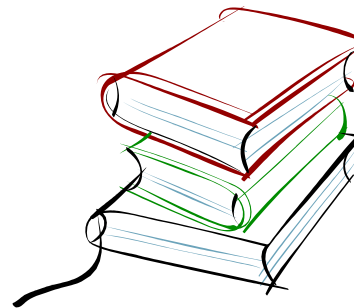
**THE GAVEL STAFF** **Course No. 1201**  
**Elective** **18 Weeks**  
**1 credits**  
**Prerequisite: Complete Application & Instructor Approval**

The Literacy Course III is required for students who are well below grade level in reading and writing. Enrollment in the course is based on teacher recommendation and test scores. Students will be immersed in reading and writing workshop. Students will be instructed in choosing texts of high-interest and will write about the books in dialogue with the instructor. Students will be immersed in various genres and then read and write to the genre. The course will begin and end with reading tests to measure progress made by the members of the class.

The student newspaper *The Gavel* is an elective open to students in grades 9 - 12. Students will learn to write journalistically, edit, proofread, crop photographs, and layout and design pages and display advertising. Because the class also operates as a business, students will be expected to solicit advertising and will be held accountable to produce work that is of publishable quality. As an intensive writing course, there is a high level of discipline involved. Students should expect after school and/or weekend work. The Executive Board is selected by the advisor during the first two weeks of the course on the basis of an application and writing samples.

**GREAT WORKS** **Course No. JM1515**  
**Elective: Grades 11-12** **18 Weeks**  
**1 credit**

*James Madison University dual enrollment and fee required.* This semester elective is designed for the student who wishes to read contemporary literature and take part in the discussion, analysis, and intensive writing of a college level course. Through the humanistic study of literature, students will obtain a better understanding of themselves and the world in which they live.



**HANDLIAN STAFF**                      **Course No. 1210**  
**Elective**                                      **18 or 36 weeks**  
**1 or 2 credits**  
**Prerequisite: Complete Application &**  
**Instructor Approval**

This class is responsible for the production of the yearbook. The staff, selected by the yearbook advisor on the basis of a submitted application, previous experience, and special skills, has the responsibility of illustrating and telling the story of the school and all of its functions for any given year. The students are introduced to the fundamentals of graphic arts, photography, business and bookkeeping, journalism and interview techniques. The staff is placed in the position of making responsible decisions and working smoothly under pressure. The HANDLIAN is entered in the Virginia High School League Publications Contest so that it may be rated with other yearbooks in the state.

**SPEECH AND DRAMA**                      **Course No. 1410**  
**Elective**                                      **18 weeks**  
**1 credit**

This class is designed to introduce the beginning speech and drama student to the fundamentals of public speaking and the basics of theatre arts.

The speech component utilizes five different forms and purposes for public speaking and includes attention to enunciation, posture, poise, style, speech content, and overall presentation skills. The drama component explores improvisation, character development, make-up ensemble work, theatre history, play reading, and film study.

**FORENSICS AND**  
**DEBATE**                                      **Course No. 1399**  
**Elective**                                      **18 weeks**  
**Prerequisite: Speech and Drama**      **1 credit**

This class will focus on writing and delivery of speeches used in oratory competition in debate, original oratory, impromptu and extemporaneous events. Research methods using MLA rules and format will be utilized for writing speeches. Additionally, the course will focus on selecting, cutting, editing and delivering interpretations of literary works used in competition in dramatic, humorous, poetry, prose and duo events.

Assessment of progress will involve both writing- and performance-based methods. Those

students interested in competing on the already established Handley Forensics Team may use competition experiences as the basis for performance assessments. Others will be required to perform in class, at a public presentation and/or at a school sponsored event such as Poetry Out Loud, Poetry Slam or a Forensics showcase.

**IMPROVISATION**                              **Course No. 1440**  
**Elective**                                      **18 weeks**  
**1 credit**  
**Prerequisites: Grades 10-12 and Successful**  
**Audition**

Improvisation is for the grade 10-12 acting student who has a passion and genuine love for the theatre. Improvisational Acting will teach techniques needed to build a scene on stage, foster team-building spontaneity and teach the basic rule of Improv (the “yes, and” rule). The techniques taught will sharpen student focus and increase listening skills. Students will learn to recognize and develop the basic elements of storytelling, to stretch their imagination, and to develop and recognize the importance of trust as it affects actor communication.

**CREATIVE WRITING &**                      **Course No. 1171**  
**MISCELLANEA**                              **18 Weeks**  
**Elective: Grades 10-12**  
**1 credit**

This class is for students in grades 10-12 interested in developing their creative writing skills. Students will get the opportunity to write in a variety of genres, receive feedback from their peers and extensively revise a finished collection of their work. Students must be open to sharing their writings and critiquing the works of others. It is open to any 10-12 grade student upon completion of an application with writing sample and recommendation from a previous English teacher.

Students will also create and publish the literary/art magazine *Miscellanea*. The class will participate in fund-raising projects to support the magazine as well as collecting, evaluating and publishing submissions. Students will use In-Design to format the publication.

# ENGLISH SPEAKERS OF OTHER LANGUAGES

The ESOL Program is designed for students entering John Handley High School with limited English proficiency. Students are administered a home language survey to determine if they qualify for the program. Students who meet the qualifications are administered a battery of tests in speaking, listening, reading, and writing to determine their placement. (Class placements can be either Level 1a (Newcomers), Level 1b, Level 2a, or Level 2b. Furthermore, dependent on assessment outcomes, the student could be placed in one of the sheltered classes; Science, Math or World History class for additional support.)

The ESOL program offers sheltered classes for students to work on developing English language abilities, cognitive abilities, and content area skills. The ESOL program also offers an inclusion model for in-class support to students in SOL classes.

## **ESOL LITERACY I A/B Course No. 57104** **18 weeks 1 credit**

ESOL Literacy I is an English course designed for students who read and write at a WIDA Level 1 and 2. Students will read independently a variety of fiction and nonfiction, including a significant number of classic works, for appreciation and comprehension. They will also plan, draft, revise, and edit narratives, descriptions, and explanations, with attention to composition and style as well as sentence formation, usage, and mechanics. By applying grammatical conventions in writing and speaking, students will demonstrate correct use of language, spelling, and the language's mechanics.

## **ESOL LITERACY II A/B Course No. 57105** **18 weeks 1 credit**

ESL Literacy II is a low to intermediate English course designed for students who read and write at a WIDA Level II and III. The course content focuses on the SOLs in preparation for students to enter English 9 or Transitional English the following year. Knowledge of literary terms and forms will be applied in the student's own writing and in the analysis of literature. Focus on writing elements, journaling, outline construction and research will encompass narrative, literary, expository, and informational forms. The student will demonstrate correct use of language, spelling, and mechanics by applying grammatical conventions in writing and speaking.

## **ESOL MATH Course No. 5723** **18 weeks 1 credit**

ESOL Math is a mathematics program designed for non-native speakers of English who are two or more years behind in math and have limited experiences in formal educational settings. The ESOL Math curriculum utilizes a combination of Fast Math, Great Source Access Math, and Longman Mathematics; all developed by teachers from both math and ESOL backgrounds. It provides specific strategies for introducing and developing language in mathematics class and to build skills essential to transition into Algebra I. Concrete, collaborative learning experiences are emphasized throughout the program.

## **ESOL WORLD HISTORY Course No. 57103** **18 weeks 1 credit**

ESOL World History is a course designed to accelerate both the acquisition of English and the learning of content material. Students work in a sheltered environment with activities and resources specially designed for Level 2 ESOL students. It covers material from the end of the Ice Age to the civilizations of Ancient India, China, and the Americas.

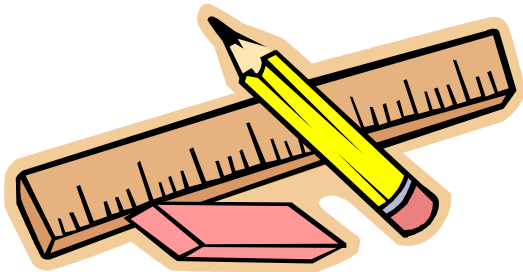


**ESOL SCIENCE TOPICS** Course No. 57106  
**18 weeks** **1 credit**

ESOL Science Topics is a course designed for students to work in a sheltered environment with activities and resources specially designed to facilitate learning science concepts by beginner English language learners. The curriculum covers the study of the earth and its place in space, its development, structure, and evolution.

**TRANSITIONAL ENGLISH** Course No. 1515  
**18 weeks** **1 credit**

This course will provide a transition to English 9 from the ESOL Literacy II programming.



**ESOL CONTENT LAB** Course No. 57111  
**18 weeks** **1 credit**

This is a class designed for ESOL students in the 1B-2A level of English proficiency. The class is divided into four 4-week quarters. Each quarter focuses on units related to the Social Studies and Science curriculum. The goal of the class is for students to continue developing English language and cognitive skills at the same time that they learn both Science and Social Studies concepts.

**NEWCOMER ESOL CLASS** Course No. 57110  
**18 weeks** **2 credit**

Students in the Newcomer Program receive two classes of ESOL instruction per day. One class focuses on language arts and the other focuses on academic language (content specific vocabulary and skills).

In the language arts class, students have the opportunity to develop skills in all four language areas: listening, speaking, reading and writing. This class emphasizes word work, vocabulary development, basic grammatical structures, and guided reading/writing.

The content class emphasizes the development of vocabulary and background knowledge that students will need in academic classes, especially science and social studies. Students learn how to use maps and globes, recognize landforms and bodies of water, and how climate impacts people, plants and animals. The course also introduces people and places in the community, different kinds of shelter, and the problems caused by pollution.





# FOREIGN LANGUAGES

The Foreign Language Department offers four languages: French, German, Latin, and Spanish. Because of the cumulative nature of learning a new language, all students are strongly encouraged to consult their foreign language teacher before registering for the next level of that language

## \*\*\*\*GERMAN\*\*\*\*

**GERMAN I** **Course No. 5210**  
**Elective** **18 weeks**  
**1 credit**

This course introduces students to beginning German with emphasis on basic grammar and the vocabulary of family life and tourism. In addition, students learn about German culture and customs through interactive assignments and activities. By the end of the course, students will be able to speak, understand, write and read German at an entry level. German and English are the languages of instruction in the classroom.

**GERMAN II** **Course No. 5220**  
**Elective** **18 weeks**  
**Prerequisite: German I** **1 credit**

This course builds on skills acquired in German I. Students learn more sophisticated grammar and vocabulary; write essays on topics of interest, such as sports and politics; engage in frequent conversations in German in the classroom as well as prepare and present formal oral presentations; and study German history, literature and culture. German and English are the languages of instruction.

**GERMAN III** **Course No. 5230**  
**Elective** **18 weeks**  
**Prerequisite: German II** **1 credit**

Through a focus on the daily life, interests, and concerns of teenagers in German-speaking countries, students review, refine, and expand their knowledge of German vocabulary and grammar. Debate and discussion skills and essay writing are emphasized while studying topics such as media and advertising, rights and responsibilities, intercultural awareness, and the environment. German is the primary language of the classroom.

**GERMAN IV** **Course No. 5240**  
**Elective** **18 weeks**

**Prerequisite: German III** **1 credit**

Advanced, well-motivated students of German hone skills in writing, reading, listening and speaking through the study of contemporary and classical German literature; current events and culture in German-speaking lands; and at least one theme selected by the class. Students will be expected to do both independent and group work and take advantage of technology-assisted learning opportunities. German is the language of the classroom. *Through dual enrollment with Lord Fairfax Community College, students can earn three college credits for this course.*

**AP GERMAN LANGUAGE** **Course No. 5250**  
**Elective** **18 weeks**  
**Prerequisite: German IV** **1 credit**

Advanced, highly motivated students of German continue to build and demonstrate their writing, reading, speaking and listening skills. Emphasis will be on written and oral analysis of a variety of fiction and non-fiction works as well as various, sometimes student-selected, aspects of contemporary culture of German-speaking lands. Students will hone grammar skills, build vocabulary, make use of technology and participate in exercises to prepare them for the AP German Language Examination. German is the language of the classroom. *Through dual enrollment with Lord Fairfax Community College, students can earn three college credits for this course.*



**\*\*\*\*FRENCH\*\*\*\***

**FRENCH I** **Course No. 5110**  
**Elective** **18 weeks**  
**1 credit**

The student is introduced to beginning French by a verbal active method, which is enhanced by the traditional emphasis on grammar. Following the text very closely, the skills of listening, speaking, writing and understanding are drilled, via textbook exercises, oral conversation, dictation, etc. An effort is made to conduct as much of the class as possible in French to familiarize the students with this new sound system. In addition to learning the rules of the language itself, students also become acquainted with certain aspects of French life, i.e., Christmas customs, popular songs, monuments, student life and French cuisine.

**FRENCH II** **Course No. 5120**  
**Elective** **18 weeks**  
**Prerequisite: French I** **1 credit**

French II offers a comprehensive review of French I vocabulary and grammar and introduces the student to the next level of proficiency in the three modes of communication: interacting with French speakers; understanding oral and written messages in French; and making oral and written presentations in French. Students will be exposed to more complex features of the French language in the context of their immediate world and daily life activities. Emphasis is placed on French in the classroom as well as the use of authentic materials to learn about the culture. Students will use the Internet for research, for on-line language practice, and be encouraged to make virtual connections with French-speakers.

**FRENCH III** **Course No. 5130**  
**Elective** **18 weeks**  
**Prerequisite: French II** **1 credit**

French III students will continue to develop their proficiency in the three modes of communication: interacting with French speakers; understanding oral and written messages in French; and making oral and written presentations in French. Students will learn to use more complex structures for the study and discussion of a variety of topics, including art, history, family relationships, social rights and responsibilities, and cultural comparisons.

Selected readings from French authors will provide an introduction to French literature. French is used almost exclusively in the classroom, as are authentic materials. Students will use the Internet for research and for on-line language practice.

**FRENCH IV** **Course No. 5160**  
**Elective** **18 weeks**  
**Prerequisite: French III** **1 credit**

This course will expand on the basic elements of the French language and highlight cultural background of many of the countries in which it is spoken. The course's primary purpose is to enable you to command the language enough to converse easily and correctly in common, everyday situations, to express yourself both orally and in writing, and to be familiar with the grammar and general structure of the language. Through a combination of approaches—listening, writing, speaking, and reading—the course will furnish you with mutually reinforcing ways of learning French so that your skills will be well rounded. *Through dual enrollment with Lord Fairfax Community College, students can earn three college credits for this course.*

**AP FRENCH LANGUAGE** **Course No. 5140**  
**Elective** **18 weeks**  
**Prerequisite: French IV** **1 credit**

This course is designed to increase the students' abilities in four basic language skills in preparation for the AP French Language Examination. Using reading selections representative of various aspects of French culture as a base, the student increases his ability to read, discuss, and comprehend French. The class is conducted mostly in French to provide opportunities for the students to enhance their aural and oral skills. Via a systematic review of grammar, the emphasis now is to refine and learn how to express one's thoughts orally and through guided writing. Students will be introduced to various types of French films. *Through dual enrollment with Lord Fairfax Community College, students can earn three college credits for this course.*



**\*\*\*LATIN\*\*\***

**LATIN I** **Course No. 5310**  
**Elective** **18 weeks**  
**1 credit**

Serious students learn basic English grammar, as well as history, mythology, and English vocabulary, while learning the language and culture which has most influenced our own. Students read Latin stories about the Corneli family, which continue in a sequence up through Latin II. There is homework almost every night, as well as frequent tests and quizzes. The course includes a thorough study of nouns and verbs, concentrating on the students' ability to read Latin.

**LATIN II** **Course No. 5320**  
**Elective** **18 weeks**  
**Prerequisite: Latin I** **1 credit**

After three weeks of thorough review, the class will continue to build Latin grammar, vocabulary and English derivatives, as well as glimpsing different aspects of Roman life, through reading of the further adventures of our typical Roman family, the Corneli. A year-long study of mythology exposes students to the influence classical myths have had on art, literature and the English language.

**LATIN III** **Course No. 5330**  
**Elective** **18 weeks**  
**Prerequisite: Latin II** **1 credit**

After an intensive review of Latin grammar, the class will use their accumulated grammar and vocabulary to read original Latin works which will give an insight into what the Romans thought about themselves. This involves the study of the Latin love poetry and comedy of Catullus, Ovid, Martial and Plautus. An in-depth study of Roman history from the fall of Troy through the fall of the Empire over 1500 years later will expose students to the heroes, villains, and ideas which have influenced our lives, with emphasis on the first century B.C. and the roles of Caesar, Cicero, and Augustus. Students will also study the monuments of ancient Rome in depth.

**AP LATIN VERGIL** **Course No. 5340**  
**Elective** **18 weeks**  
**Prerequisite: Latin III** **1 credit**

Vergil and his works are viewed in the perspective of the Augustan Age and its impact on world history and literature both before beginning his epic, the Aeneid, and while reading Books I, II, IV, and VI in Latin and the remaining books in part or in English. Students in the course are fully prepared to take the CEEB Advanced Placement Latin exam in May to receive college credit for their work.



**\*\*\*SPANISH\*\*\***

**SPANISH FOR NATIVE** **Course No. 5505**  
**SPEAKERS** **18 weeks**  
**Elective** **1 credit**  
**Prerequisite: IPT testing as needed to**  
**determine oral language proficiency**

This course offers fluent speakers of Spanish the opportunity to strengthen their reading and writing skills in their native language. The students learn about the Hispanic contributions to the English language and American culture. The students also study the major historical figures and events of Spanish-speaking countries. This course is conducted in Spanish.

**SPANISH I** **Course No. 5510**  
**Elective** **18 weeks**  
**1 credit**

The student is introduced to the Spanish language through a contextual focus on grammar and vocabulary. The skills of reading, writing, listening, and speaking are shaped through a variety of approaches including written and oral exercises, audiovisual presentations, and the building of conversational skills. Students begin to make connections with the Hispanic cultures and peoples of the world in addition to their study of the language. Spanish is spoken in class as much as possible.

**SPANISH II** **Course No. 5520**  
**Elective** **18 weeks**  
**Prerequisite: Spanish I** **1 credit**

The student reviews basic material from Spanish I and advances into further emphasis on vocabulary, grammar, and proficient communication. Students learn to use new structures through contextual themes and further cultural awareness. Audiovisual presentations and authentic materials continue to emphasize the four skills of listening, speaking, reading, and writing in order to prepare students for the Spanish encountered in today's world. A significant portion of the class is conducted in Spanish to reinforce skills and promote fluency.

**SPANISH III** **Course No. 5530**  
**Elective** **18 weeks**  
**Prerequisite: Spanish II** **1 credit**

The student refines grammar skills and expands vocabulary structures in order to communicate on an advanced and proficient level in the written and oral forms. The use of various authentic materials continues to prepare the student to use modern Spanish. Further cultural connections are made as students encounter more advanced readings, literature, videos, and recordings. Most of the class is conducted in Spanish.

**SPANISH IV** **Course No. 5570**  
**Elective** **18 weeks**  
**Prerequisite: Spanish III** **1 credit**

The student will continue developing his/her Spanish studies at the college level. Through a variety of communicative activities, a study of thematic vocabulary, targeted pronunciation and

spelling practice, a review of grammar, and emphasis on comprehension and analysis of short readings and excerpts from the work of writers included in the AP Spanish literature reading list, the student will be ready to use the language in the world, study literature and/or continue his/her studies in college. With few exceptions, Spanish will be used exclusively in the class. *Through dual enrollment with Lord Fairfax Community College, students can earn three college credits for this course.*

**AP SPANISH**  
**LANGUAGE** **Course No. 5540**  
**Elective** **18 weeks**  
**Prerequisite: Spanish III** **1 credit**

From the preceding years, the student has developed a basic working knowledge of the Spanish language. The AP language study allows students to attain a higher level of language proficiency by combining the study of grammar with a focus on reading comprehension, oral expression, and writing. Various literary and cultural topics are covered as a vehicle to increased fluency and depth of expression. The demands of the course are equivalent to those of an intermediate level college course. *In addition to preparing students for the AP Spanish Language exam, the class may also be dual enrolled with Lord Fairfax Community College. Students can earn three college credits for this course.*

**AP SPANISH**  
**LITERATURE** **Course No. 5550**  
**Elective** **18 weeks**  
**Prerequisite: Spanish IV** **1 credit**

Major works of Hispanic literature are studied and used to stimulate oral and written proficiency that will prepare students to use Spanish in college or the work place. Spontaneous conversation and development of written accuracy are focal points of the course. Students learn to analyze and extract practical meaning from major literary pieces and express opinions and ideas on an accelerated level. The reading and writing demands of the course are equivalent to those of an advanced level college course. The class also prepares students with the strategies and skills necessary for success on the AP Spanish Literature exam. *Through dual enrollment with Lord Fairfax Community College, students can earn three college credits for this course.*

# KINESIOLOGY & HEALTH

**Kinesiology** is defined as the art and science of human movement, or the study of principles of mechanics and anatomy in relation to human movement.

The goal of Kinesiology studies is to maximize the potential of individuals in society through the study of human movement.

The Kinesiology core provides students with a basic understanding of the discipline of human movement. It provides an understanding of the biological, psychological, historical, philosophical and social factors that influence and are influenced by movement. Kinesiology also differentiates among forms of movement in exercise, dance, sport, games and aquatics.

**KINESIOLOGY 9**                      **Course No. 7310**  
**Required**                                      **18 weeks**  
**½ credit**

Some of the activities a student may choose during the ninth grade year include Tennis, Soccer, Track, Floor Hockey, Fitness Walking, Volleyball, Basketball, Gymnastics, Badminton, Fitness & Rhythms, Flag Football, Angleball, Softball, Step Aerobics, and Weight Training.

**KINESIOLOGY 10**                      **Course No. 7410**  
**Required**                                      **18 weeks**  
**Prerequisite: Kinesiology 9**                      **½ credit**

In addition to activities similar to those in Grade 9, activities such as Speedball, Field Hockey, Table Tennis, Team Handball and Archery add to student knowledge and skill.

**KINESIOLOGY 11 - 12**                      **Course No. 7510**  
**Elective**                                      **18 weeks**  
**Prerequisite: Kinesiology 9, 10**                      **1 credit**

This program concentrates on lifetime sports such as: Tennis, Golf, Bowling, Outdoor Education, Career and Recreational Leadership. Other activity choices include: Self Defense, Weight Training, Fencing, Sports Medicine, and Movement Analysis as well as certain team sport offerings.

**HEALTH 9**                                      **Course No. 7320**  
**Required**                                      **18 weeks**  
**1/2 credit**

Health Education 9 consists of units in Cardiopulmonary Resuscitation, Physical Fitness, Nutrition, Disease, Drugs and Family Life Education. In the CPR unit, students are taught information and skills required for the American Heart Association Family and Friends course completion.

**HEALTH 10**                                      **Course No. 7420**  
**Required**                                      **18 weeks**  
**Prerequisite: Health 9**                                      **1/2 credit**

Health Education 10 consists of Classroom Driver Education, Mental Health, and Family Life Education. Driver Education uses the Drive Right text and workbook.

## KINESIOLOGY OPTIONS

For ninth and tenth graders the courses Kinesiology 9/Health 9 and Kinesiology 10/Health 10 are required courses for graduation. Freshmen and sophomores can elect to take the following kinesiology electives:

○ **Kinesiology 9 or 10 Elective** – this course will be scheduled in an opposite semester with Kines 9/Health 9 or Kines 10/Health 10 and will provide a student with an entire year of physical activity.

○ **Kinesiology 11-12** – Juniors and Seniors may take additional semesters of Kinesiology 11-12 for elective credit.

# MATHEMATICS

**ALGEBRA I**  
**Required**  
**1 credit**

**Course No. 3130**  
**18 weeks**

This course is the introductory academic mathematics course at Handley. Students will use algebra as a tool for representing and solving a variety of practical problems. Content will involve making connections between algebra and arithmetic, geometry, and probability and statistics in order to attach meaning to abstract concepts. Problem solving skills will be emphasized. The use of technology will be implemented to enhance student learning.

**GEOMETRY**  
**Required**

**Course No. 3143**  
**18 weeks**  
**1 credit**

**Prerequisite: Algebra I**

This course includes properties of geometric figures, trigonometric relationships, and reasoning to justify conclusions. Methods of justification will include deductive reasoning, proofs, algebraic methods, and verbal arguments. This course includes emphasis on two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. Applications and some general problem-solving techniques, including algebraic skills will be used. Any technology that will enhance student learning will be used.



**ALGEBRA, FUNCTIONS**  
**AND DATA ANALYSIS**  
**Elective**

**Course No. 3134**  
**18 weeks**  
**1 credits**

**Prerequisite: Algebra I**

This course is designed for students who have successfully completed the standards for Algebra I. 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. Students will study functions, systems of inequalities, probability, and analysis of data. Data will be generated by practical applications, arising from science, business, and finance. Students will solve problems that require formulation of linear, quadratic, exponential or logarithmic equations.

**ALGEBRA II**  
**and TRIGONOMETRY**  
**Elective**

**Course No. 3136**  
**36 weeks**  
**2 credits**

**Prerequisite: Algebra I and Geometry**

The students enrolled in this course will meet the Algebra II Standards of Learning. A thorough treatment of advanced algebraic concepts is provided through the study of functions, “families of functions”, polynomials, rational and radical equations, complex numbers, probability and statistics, and sequences and series. The quadratic system, logarithmic and exponential functions are also studied. The student will be introduced to topics pertaining to Trigonometry. Emphasis will be placed on practical applications. Graphing calculators or computers will be used by students and teacher.

**ALGEBRA II** Course No. 3136  
**and TRIGONOMETRY** 18 weeks  
**Elective** 1 credits  
**Prerequisite:** Algebra I and Geometry

This semester-long option for Algebra II and Trigonometry is **only recommended for students who earned an A in Algebra, an A or B in Geometry, and have earned a score of 500 or better on both of the those end-of-course SOL tests.** The course will include all of the topics in the year-long course (listed above) in a more rigorous approach.

**PRE-CALCULUS** Course No. 3161  
**Elective** 18 weeks  
1 credit  
**Prerequisite:** Algebra II and Trigonometry

This course includes a review of trigonometry and exponential and logarithmic functions. Other topics will include algebraic and transcendental functions, parametric and polar equations, sequences and series, vectors and further application of probability, statistics and matrix algebra. Students will be introduced to limits, derivatives, and their applications.

**DISCRETE MATH** Course No. 3154  
**Elective** 1 credit  
**Prerequisite:** Algebra II and Trigonometry

Discrete Math is the study of math properties of sets and systems that have a countable number of elements. This course includes an in-depth study of real world concepts including graph theory, linear programming, matrix modeling, and social decision-making. The main focus is problem solving. Techniques that are not considered in the current traditional courses of algebra, geometry, and calculus will be utilized with connections to other disciplines.

**PROBABILITY AND STATISTICS**  
**Elective** Course No. 3190  
18 weeks 1 credit  
**Prerequisite:** Algebra II and Trigonometry

The purpose of this course is to present basic concepts and techniques for collecting and analyzing data, drawing conclusions, and making predictions. Students enrolled in this course are assumed to have mastered the concepts identified in Algebra II and should have an interest in real-world applications of mathematics. Emphasis will be placed on appropriate methods for

collecting data and analyzing data with some measure of certainty about results.

**CALCULUS** Course No. 3170  
**Elective** 18 weeks  
**Prerequisite:** Pre-Calculus 1 credit

This course covers limits, continuity, differentiation techniques, and techniques of integration for algebraic and transcendental functions. Differentiation and integration will be applied in a variety of ways for several fields of study. Applications of the definite integral will be explored.

**AP STATISTICS** Course No. 3192  
**Elective** 18 weeks  
**Prerequisite:** Pre-Calculus or 1 credit  
**Probability and Statistics**

This AP course in statistics is designed to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The main topics covered in this course are exploratory data analysis, experimental design, probability and inferential statistics. Emphasis is placed on techniques for the interpretation of data. Technology will be used for calculation so that students may focus on the validity and meaning of appropriate conclusions.

**AP CALCULUS AB** Course No. 3177  
**Elective** 36 weeks  
**Prerequisite:** Pre-Calculus 2 credits

This course is a rigorous treatment of the topics of elementary calculus. Algebraic, trigonometric, exponential, and logarithmic functions will be studied, with emphasis on the properties and limits of these functions. Differential calculus and its applications will be studied. Techniques of integration and applications of the definite integral will be examined. Analytic geometry and polar coordinates will also be explored.



**AP CALCULUS BC**                      **Course No. 3179**  
**Elective**                                      **18 weeks**  
**Prerequisite: Calculus AB**              **1 credit**  
**Recommendation: At least a 3 on the**  
**Calculus AB Test**

Calculus BC is an extension of Calculus AB. This course provides the student a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, and verbally. Considerable mathematical ability and individual initiative of the student is expected.

The course begins with a thorough review of AB Calculus. Additional topics include parametric, polar, and vector functions, their derivatives and applications. Logistic differential equations, integration by parts, integration using partial fractions and improper integrals will also be studied. Geometric series, alternating series with error bound, and convergence tests along with a review for the AP BC test wrap-up the course.

**\*\*\* ELECTIVE COURSES \*\*\***  
**IN COMPUTER SCIENCE**

**COMPUTER MATHEMATICS**  
**Elective**                                      **Course No. 31801**  
**1 credit**    **18 weeks**  
**Prerequisite: Algebra I and currently (or have**  
**completed) enrolled in Geometry**

This course is intended to provide students with experiences in using computer programming techniques and skills to solve problems that can be set up as mathematical models. Students enrolled in Computer Mathematics are assumed to have studied the concepts and skills in Algebra I and Geometry. Students who successfully complete this course will earn credit toward meeting the Virginia mathematics graduation requirement.

We will be using VisualBasic.NET as the programming language of this course. VB is an object-oriented language that uses the Microsoft Windows user interface to create true windows based applications. Student's programs will use radio buttons, dialog boxes, and list boxes to create forms that solve a variety of problems.

The goal of this course is to provide the best possible introduction to learning the VisualBasic.NET programming language and therefore prepare the student for more advanced computer science courses. While no programming experience is required, considerable individual initiative on the part of the student is expected.

**JAVA PROGRAMMING**    **Course No. 3190**  
**Elective: Grades 10-12**                      **18 weeks**  
**1 credit**  
**Prerequisite: Computer Mathematics and**  
**Instructor Approval**

Java, developed by Sun Microsystems, is a widely used high-level object oriented programming (OOP) language that evolved out of the need to develop complex programs using a systematic, modular approach. OOP programmers create modules, called classes, which can be used over and over again in a variety of programs. The OOP and platform-independence of Java have allowed programmers to create applications for the masses making it one of the most utilized of programming languages.

In this course we will learn the fundamentals of the Java language, learn how to use classes to create programs, and then learn how to write our own classes. Inheritance and polymorphism along with abstract classes and interfaces will be studied. Finally, we will use the concepts studied to write programs that use the Windows graphical user interface.

The goal of this course is to provide the best possible introduction to learning the Java programming language and therefore prepare the student for more advanced computer science courses.



# MUSIC

## \*\*\* INSTRUMENTAL \*\*\*

**MARCHING AND SYMPHONIC BAND**      **Course No. 9234**  
**Elective**      **36 weeks**  
**2 credits**

This course is a performance class comprised of students who have acquired sufficient musical background to successfully perform in the band. The marching band, with the auxiliary unit, performs at football games, parades, and competitions throughout the school year. After the usual ten weeks of football season are completed, the band progresses into its symphonic season. The symphonic band performs for district festival and several concerts in and around the Winchester area. The band has traveled to different states and to Canada for performances. More educational trips of this nature are being contemplated and planned for the future. This class seeks not only to develop the skills of each musician but also to develop the individual's responsibility to the group as a whole. For all concerts and performances, attendance by all members is mandatory.

**STAGE BAND (JAZZ ENSEMBLE)**      **Course No. 9250**  
**Elective**      **36 weeks**  
**Prerequisite: Successful Audition**      **1/2 credit**

Stage band is designed to offer the advanced instrumentalist a different style of music and unique performance opportunity. **Students will study and perform swing, Latin, rock, funk, and popular music.** Special emphasis will be given to the art of improvisation.

**GUITAR SCHOOL I**      **Course No. 9245**  
**18 Weeks**      **Elective**  
**1 credit**

This is an elective course offering beginning instruction on the guitar. It covers open chords, power chords, moveable chords, accompaniment techniques and a variety of playing techniques and styles including the pick style and fingerstyle approaches to the guitar. The course also includes music fundamentals, theory songs, performing, listening, composing, improvising, analyzing, and learning how to read standard music notation and tablature..

**IMPORTANT!** All students will be required to bring their own **ACOUSTIC** guitar for use in this class.

**GUITAR SCHOOL II**      **Course No. 9246**  
**Elective**      **18 weeks**  
**Prerequisite: Guitar School 1**      **1 credit**

This is an elective course offering intermediate to advanced instruction on guitar. It covers open chords, power chords, moveable chords, extended and embellished accompaniment techniques and a variety of playing techniques and styles including both the pickstyle and fingerstyle approaches to the guitar. The course also includes music fundamentals and theory, songs, performing, listening, composing, improvising, analyzing, and learning how to read standard music notation and tablature.

**IMPORTANT!** All students will be required to bring their own **ACOUSTIC** guitar for use in this class.



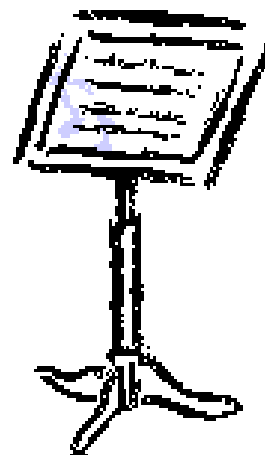
**\*\*\* CHORAL \*\*\***

**HILLTOP SINGERS**                      **Course No. 9280**  
**Elective: Grades 10 – 12**                      **36 weeks**  
**Prerequisite: Successful Audition**                      **2 credits**

The Hilltop Singers is a select ensemble of advanced singers. It is open to students in the 10th, 11th, and 12th grades that audition successfully. The ensemble is a performance-oriented group designed to offer the talented singer the opportunity to perform challenging music of all styles with a special emphasis on music of the classical genre. The students will perform throughout the community and participate in district and state choruses, festivals and competitions. Attendance at all performances is mandatory.

**SOUND WAVES**  
**SHOW CHOIR**                                      **Course No. 9289**  
**18 or 36 weeks**                                      **Elective**  
**1 or 2 credits**  
**Prerequisite: Successful Audition**

The show choir is open to 9th, 10th, 11th and 12th grade students who successfully audition and have an interest in expressive singing and dancing. Emphasis will be on show and pop music, and they will be working with a professional choreographer. There will be opportunities for the students to perform throughout the community and to participate in festival competitions, and concerts. Due to the staging of the choreography, it is necessary for students to attend all performances.



# SCIENCE

**EARTH SCIENCE**                      **Course No. 4210**  
**Elective**                                      **18 weeks**  
**1 credit**

Earth Science is designed for students to investigate Earth's development and its relationship in space. The curriculum investigates the disciplines of Geology, Meteorology, Oceanography, and Astronomy. Throughout this course, students will gain a deeper understanding of many natural processes occurring around them. This curriculum is reinforced by hands-on-activities, demonstrations, research and investigation, as well as individual activities.

**BIOLOGY**                                      **Course No. 4310**  
**Elective**                                      **18 weeks**  
**1 credit**

Biology provides students with the fundamental concepts needed to give them a broad background in basic biology. Although some knowledge of detail is always necessary to a course of this type, every effort is made to stress overall concepts at the expense of detail. Students begin the course by studying how biologists solve a scientific (biological) problem. This is accomplished by studying the thinking (both correct and incorrect) that went into formulating some of our basic biological theories. Other major topics include: basic morphology and physiology of the cell, photosynthesis and cellular respiration, the biology of representative plant and animal groups, heredity and evolution and basic ecological principles. Laboratory activities serve to give practical applications of some of the basic concepts formed throughout the course.



**AP BIOLOGY**                                      **Course No. 4370**  
**Elective**                                      **36 weeks**  
**2 credits**  
**Prerequisites: Biology and Chemistry**

Advanced Placement Biology is a rigorous college-level course. The course is designed in accordance with the requirements of the College Board and places high demands on students with regards to time, energy and academic preparation. Emphasis is placed on “overarching concepts which recur, connect and unify our understanding of topics” central to the study of living organisms as well as specific concepts which “enhance understanding of how and why particular processes or patterns occur” (College Board, 2005). Major themes stressed throughout AP Biology, in both classroom and laboratory settings, include: science as a process, evolution, energy transfer, continuity and change, relationship of structure to function, regulation, interdependence in nature and science, technology and society. Students must take the AP examination at the end of the course, which may allow them to receive college credit. *Student may have the opportunity to earn college credits through dual enrollment with Lord Fairfax Community College.*

**CHEMISTRY**                                      **Course No. 4410**  
**Elective**                                      **18 weeks**  
**1 credit**  
**Prerequisite: Algebra I**

Chemistry is a course designed for students who have a strong interest in science. Topics discussed during the year include classification of matter, chemical equations, atomic structure, chemical bonding, acid-base chemistry, nuclear chemistry, and organic chemistry. Students complete a variety of laboratory experiments designed to reinforce and expand upon classroom discussions. Specific math concepts are briefly reviewed prior to their application. Grades are based upon tests, laboratory reports, homework assignments, and a research paper/project.

**AP CHEMISTRY**                      **Course No. 4440**  
**Elective**                                      **36 weeks**  
**2 credits**  
**Prerequisite: Chemistry, enrollment in pre-calculus**

Advanced Placement Chemistry is a rigorous college-level course. The course is designed in accordance with the requirements of the College Board and may be taken only after the successful completion of Chemistry with an “A” or “B” grade. Emphasis is placed on quantitative aspects of chemical systems and the mathematical formulation of principles.

The topics covered are stoichiometry, thermochemistry, electron arrangement, bonding, molecular geometry, aqueous reactions, kinetics, equilibrium, acids and bases, oxidation and reduction, electrochemistry, nuclear chemistry, and organic chemistry. *Students must take the AP examination at the end of the course and will have the opportunity to earn college credit through dual enrollment with Lord Fairfax Community College.*

**PHYSICS**                                      **Course No. 4510**  
**Elective**                                      **18 weeks**  
**1 credit**  
**Prerequisite: Algebra II**

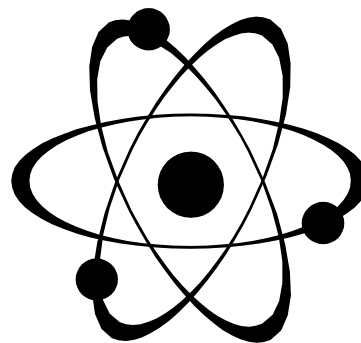
Physics is a rigorous study of complex experimentation, data analysis, using reasoning and logic to evaluate evidence. The use of mathematics including Algebra II and trigonometry is important, but conceptual understanding of the physical systems is the primary concern. Key areas covered in this course include force and motion, energy transformations, wave phenomena and electromagnetic spectrum, light, electricity, fields, and non-Newtonian physics. This course stresses practical application of physics and problem solving. It is the goal of this course to teach physics in a way that prepares students for college.

**AP PHYSICS C**  
**(Mechanics Only)**                      **Course No. 4540**  
**Elective: Grade 11 or 12**                      **18 weeks**  
**1 credit**  
**Co-requisite: AP Calculus or Calculus**

AP Physics C Mechanics serves as the foundation for students planning on majoring in science or mathematics in college. The course is structured to mirror the topics a 1<sup>st</sup> semester calculus based physics class would cover in college. These topics include: rectilinear kinematics, motion of rigid bodies in multiple dimensions, fundamental concepts of vectors, Newtonian mechanics, simple harmonic oscillators, dynamics of systems of particles, conservation of mechanical energy, and gravitational forces. *Upon completion of this course, students are required to take the AP Test given by the College Board.*

**AP PHYSICS C (Electricity and Magnetism)**                      **Course No. 4570**  
**Elective: Grade 11 or 12**                      **18 weeks**  
**1 credit**  
**Co-requisite: AP Calculus or Calculus**

AP Physics C Electricity and Magnetism serves as the foundation for students planning on majoring in physics, science, engineering or mathematics in college. The course is structured to mirror the topics a 2<sup>nd</sup> semester calculus based engineering physics class would cover in college. Gauss’s Law, charge distributions, dielectrics, capacitance, current, resistance, electric power, circuit analysis, magnetic fields, current carrying wires, Biot Savart, Electromagnetism, and Maxwell’s Equations. *Upon completion of this course, students are expected to take the AP Test given by the College Board.*



**BIOLOGY II  
ECOLOGY**  
Elective  
1 credit

**Course No. 43400**  
**18 weeks**

**Prerequisite: Biology and students will have completed a verified science credit.**

The goal of this science course 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.

The course will focus on the “real science” behind environmental problems and issues. Laboratory and field study are envisioned to be an important element of the course. This course does not have an SOL test.

**AP ENVIRONMENTAL  
SCIENCE**  
Elective  
1 credit

**Course No. 4270**  
**18 weeks**

**Prerequisite: Biology**

This course is designed for students who want to gain a greater understanding of the complex relationship between human societies and problems that face our environment today. Through global case studies, students will gain a broad perspective on the causes and consequences of environmental degradation and possible solutions that may create a more sustainable world. The course will include discussions on ethical, economic and social choices as they relate to our environment, including an historical perspective, population growth models and understanding environmental policies. Students will also examine our interaction and reliance on natural systems and resources including those of the atmosphere, water, soil and Earth’s energy sources. The course will have a rigorous and ambitious schedule, designed to follow an entry-level college environmental science course. It is recommend students only take this course upon completion of Biology with an “A” or “B” and Chemistry. *Upon completion of the course, students will be required to take the AP Test given by the College Board.*



# SOCIAL STUDIES

**WORLD HISTORY I**                      **Course No. 2340**  
**Elective**                                      **18 weeks**  
**1 credit**

This course is designed to challenge motivated students about the origin of Western Civilization and the impact of non-Western civilizations upon the West from prehistory through 1550. Though similar to World History I, this course provides more rigorous study of Western Civilization. Contemporary emphasis is placed upon current crises, international relations, and the increasing interdependence of nations. Concepts and techniques employed by historians, archaeologists, and other social scientists are explored. Stressed throughout the course are such critical thinking skills as analysis and interpretation.

**WORLD HISTORY II**                      **Course No. 2341**  
**Elective**                                      **18 weeks**  
**1 credit**

This course is designed to challenge motivated students about the continuing examination of Western Civilization and the impact of non-Western civilizations upon the West from 1550 to the present. Though similar to World History II, this course provides a more rigorous study of Western Civilization. Contemporary emphasis is placed upon current crises, international relations, and the increasing interdependence of nations. Concepts and techniques employed by historians, archaeologists, and other social scientists are explored. Stressed throughout the course are such critical thinking skills as analysis and interpretation.

**AP WORLD HISTORY**      **Course No. 002380**  
**Elective**                                      **18 weeks**  
**Prerequisite: World History I**                      **1 credit**

This course covers the World History curriculum as it is described by the College Board. It focuses on the years 1500 AD to the present. Students will review topics covered in World History I during the first two weeks of the semester. Then the class will move on to a thematic survey of modern world history from the Renaissance to the contemporary era. In AP World History, the students study the sweeping themes that tell the history of the world. It

focuses on trends, cultures, and movements in addition to facts, events and chronologies.

The course will require advanced work on the part of students. Extensive outside reading is required. The course is challenging and is designed for tenth grade students who like to work at advanced levels.

Students are required to take the AP examination at the end of this course which may allow them to receive college credit. They will also take the SOL test for World History II. *Students may have the opportunity to earn college credit through dual enrollment with Lord Fairfax Community College.*

**VIRGINIA & U.S.**  
**HISTORY**                                      **Course No. 2360**  
**Required**                                      **18 Weeks**  
**1 credit**  
**Prerequisite: World History I or World History II**

This course is designed to help students develop a strong, solid foundation in their knowledge and understanding of American History. It provides opportunity for independent research, creativity, debate, oral reporting, field trips, drama, and practice in written argumentation and composition.

Topics to be covered include the following: early Spanish, French, and English colonization in America, Puritanism and its effects on American life, slavery and the plantation system, the growth of democratic institutions, events leading to the American Revolution, the Revolutionary War, the formation of our federal government, Jeffersonian democracy, War of 1812, Monroe Doctrine, Jacksonian democracy, reform movements, expansion and the rise of sectionalism, Civil War, Reconstruction, westward migration, industrialism, and imperialism.

The course will also cover all aspects of life in twentieth century America. The basic theme will be the evolution of the United States into a dominant world power.

**AP U.S. HISTORY 11**                      **Course No. 2319**  
**Elective**                                      **36 weeks/alternating**  
**1 credit**  
**Prerequisite: World History I or World**  
**History II**

The Advanced Placement Program in American History is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and material in United States history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. The program also introduces those skills necessary to deal effectively with the AP History Exam. Among the key topics to be discussed and examined: colonial development, establishing the nation, reforms, imperialism, prosperity and depression, enlarging the national state, sectionalism, reforms, imperialism, prosperity and depression, global war, the Cold War, and contemporary American history. Students are required to take the AP examination at the end of this course which may allow them to receive college credit. *Students may have the opportunity to earn college credit through dual enrollment with Lord Fairfax Community College.*

**VIRGINIA & U.S.**  
**GOVERNMENT 12**                      **Course No. 2440**  
**Required**                                      **18 weeks**  
**1 credit**  
**Prerequisite: Virginia & U.S. History**

This course is designed for twelfth grade students. It will consist of the study of the following units: foundations of the American political system, the Constitution, structure and powers of the three branches of the national government, civil liberties and civil rights, political parties, elections and voting behavior, defense and foreign policies, the politics of regulation, and state and local government.

**AP GOVERNMENT**  
**& POLITICS**                                      **Course No. 2445**  
**Elective**                                      **18 weeks**  
**1 credit**  
**Prerequisite: VA/US History**

The Advanced Placement course in U.S. Government and Politics is a highly demanding college level class. It requires rigorous preparation and also requires a student to assume responsibility for his or her learning.

A student is expected to complete on time textbook assignments as well as supplementary readings. Enrollment in this course is recommended for a student who has a high interest in American government and politics. It is very important that each student must be able to read, comprehend, and interpret data at grade level or higher.

The course is designed to give a student a critical perspective on U.S. government and politics. It involves the study of the general concepts of government and politics, as well as the study of the nature of the American political system, its development, and how it works. In addition, the course examines the principal processes, institutions, and the making and implementation of public policies at the national level.

Among the key topics that will be discussed and examined are: constitutional underpinnings of U.S. government, democratic theory, political parties and interest groups, institutions and policy processes of national government, and civil liberties and civil rights. Students are required to take the AP examination at the end of this course which may allow them to receive college credit. *Students may have the opportunity to earn college credit through dual enrollment with Lord Fairfax Community College.*

**INTRODUCTION TO  
PSYCHOLOGY**  
Elective: Grades 11-12  
1 credit

Course No. 2900  
18 weeks

This course will introduce students to the fundamental aspects of the science of psychology through examining theories of human thought, emotion, and personality. Students will compare and evaluate major theories and analyze the impact culture has on the development of psychological theories. Students will demonstrate mastery of objectives through writing, discussion, demonstration, projects, and other methods.

**GPSYCH 101**  
Elective: Grades 11-12  
1 credit

Course No. JM2900  
18 weeks

*James Madison University dual enrollment and fee required.* This course provides students with an examination of human behaviors and mental processes on the individual and group levels. Topics of study will include biopsychological, cognitive, developmental, and sociocultural behaviors. Successful completion of the course will yield 3 college credits of psychology in addition to an elective credit at the high school level.





# SPECIAL EDUCATION

The Special Education Program is designed for students who have Individualized Education Plans.

**ENGLISH I AND  
ENGLISH II** Course No. **078689 & 078690**  
**18 weeks** **1 credit**

These courses are designed to teach reading decoding and comprehension skills, as well as writing, spelling, and grammar skills according to each student's needs. Poetry, short stories, non-fiction, and novels are also taught to students to help prepare them for VA Standards of Learning (SOL) testing and for success in the mainstream. Successful attainment of these skills will afford the opportunity for students to mainstream into regular education English classes.

**BIOLOGY PART I** Course No. **004300**  
**18 weeks** **1 credit**

Biology, or life science, is the study of life and living things. This course provides structure and support for students with diverse learning needs. Like a scientist, students will learn about classification and organization, patterns of reproduction, growth and development, the human body systems, and other life science concepts.

**EARTH SCIENCE  
PART I** Course No. **004200**  
**18 weeks** **1 credit**

Earth Science I is designed for students to investigate Earth's development and its relationship to space. Throughout this course, students will develop a better understanding of many natural processes occurring around them by studying the various branches of earth science, including geology, meteorology and oceanography.

**PERSONAL LIVING  
AND FINANCE** Course No. **003120**  
**18 weeks** **1 credit**

This course is designed for students who have successfully completed Algebra I. Course content includes computing and understanding taxes, preparing and balance a personal/family budget, managing debt, comparing various savings options, and identifying consumer rights and responsibilities.

**RESOURCE** Course No. **078001**  
**18 weeks** **1 credit**

This course provides academic assistance to students who receive special services. Students receive individualized instruction in order to remediate their academic weaknesses. Students also have the opportunity to learn and practice study skills and test-taking strategies, which will help them be successful in regular education classes.

**WORK  
OPPORTUNITIES** Course No. **078685**  
**18 weeks** **1 credit**

Students who are found eligible can participate in the School-to-Work Program. Each student is responsible for securing part-time community-based employment. Students are expected to have 200 hours of satisfactory work experience to earn a credit. Students are monitored and evaluated. Each student must have a Work Opportunity Training Agreement Contract.



**FUNCTIONAL  
MATH  
18 weeks**

**Course No. 007844  
1 credit**

Functional Math is a course designed to teach students basic math skills necessary for living on their own either independently or semi-independently. The specific skills that are taught include: understanding time (days, month, year); counting money to make a purchase (food, clothing, misc. items); comparing store brand prices to name brand prices; calculating the cost of a grocery list (using a calculator); reading a restaurant menu and determining the cost of a meal; earning money and paying bills, writing checks, making deposits, and balancing a bank statement (for advanced students).

**MATH I  
1 credit**

**Course No. 078252  
18 weeks**

The objective for this course is for students to develop an understanding of basic mathematical operations and procedures as they relate to everyday life. The specific skills that will be taught include: whole number skills, fractions, decimals, percentages, and general math skills.

**MATH II  
18 weeks**

**Course No. 078683  
1 credit**

The objective of this course is for students to master basic mathematical operations and procedures. The areas of study are: whole numbers, fractions, percents, ratios and proportions, measurement, and math skills for consumers.

**ALGEBRA  
FOUNDATIONS  
18 weeks**

**Course No. 003200  
1 credit**

The objective of this course is to reinforce and build prior knowledge of Algebra. Instruction will be based upon the following six sections that are reporting categories of the Virginia SOL for Mathematics: number and number sense, computation and estimation, measurement, geometry, probability and statistics, patterns, functions, and algebra.

**FUNCTIONAL  
READING  
18 weeks**

**Course No. 007841  
1 credit**

This course is designed to provide students with a basic understanding of how print is organized and used to communicate. Emphasis is placed on the development of specialized vocabularies for the vocational and community setting and the comprehension of these words in a functional situation. Instruction will include: vocabulary found on applications/forms; vocabulary found on community direction, warning and safety signs; vocabulary found on food, medication, clothing and cleaning labels; vocabulary found on menus, and in grocery stores; and basic sight vocabulary words.

**READING I  
1 Credit**

**Course No. 078255  
18 weeks**

The objective of this course is for students to increase their reading skills/ability. This course will focus on phonics skills, fluency, accuracy, and comprehension. Throughout this semester students will also work on spelling skills. They will also learn about making predictions, differentiating between fiction and non-fiction and recognizing essential sight words. Students will be introduced to a variety of materials and receive instruction on test taking strategies for standardized reading tests.

**READING II  
1 credit**

**Course No. 078258  
18 weeks**

**Prerequisite: Reading I**

The students in this course will be introduced to more varieties of text. This course will focus primarily on increasing students reading fluency. Students will be introduced to novels, and more intricate literature and will also receive instruction on test taking strategies that they will need to pass the Virginia Standards of Learning (SOL) reading test.

**US HISTORY****PART I****18 weeks****Course No. 002361****1 credit**

This course is designed to help students develop an understanding of early American History. Some of the topics covered are: early colonization of America, cultural/social life in early America, growth of democratic ideas in America, and events of the Civil War.

**GOVERNMENT****18 weeks****Course No. 078262****1 credit**

This course is designed to provide students with an understanding of the American political system, the Constitution, structure and powers of the three branches of government, American's rights and freedoms, and the relationship between state and local governments.

**SOCIALSTUDIES****AND SCIENCE****FOUNDATIONS****18 weeks****Course No. 004615****Course No. 002296****1 credit**

This course is designed to assist students in the preparation of portfolio evidence to be used in satisfying the requirements of the Virginia Alternate Assessment Program (VAAP). The Virginia Aligned Standards of Learning or ASOLs provide the framework for the course. Students will learn basic principles and concepts associated with each subject area. Specific topics to be covered will be determined individual student abilities and needs.

**TOPICS IN****EARTH SCIENCE****18 weeks****Course No. 004612****1 credit**

This course is designed to provide students with a better understanding of the Earth's development and its relationship in space. Some of the topics that will be covered are: the formation of the universe, the Earth's crust, history, oceans and space exploration.

**TOPICS IN****BIOLOGY****18 weeks****Course No. 078259****1 credit**

This course is designed to provide students with a better understanding of the life process. Some of the topics that will be covered are: cell

structure, kingdoms of life, evolution and genetics.

**WORLD OF WORK****18 weeks****Course No. 078412****1 credit**

Topics covered include soft/social skills necessary to secure successful employment, employment vocabulary, personal assessment, job research, job seeking skills, and self advocacy skills. Students spend a third of each class day engaging in *school-based*, hands-on work, such as recycling, light cleaning, mail distribution, food preparation, laminating, and assisting with school newsletter mailings. Students who are 3 years from their exit year of high school are targeted as World of Work participants. Students are encouraged to develop a relationship with the local Dept. of Vocational Services for the purpose of receiving support for their long-range transition goals.

**WORK CENTER****18 weeks****Course No. 078411****2 credit**

Topics covered in World of Work are reviewed and expanded on. Students participate in a *community* work placement, for approximately 1 hour and 15 min. of this 2 block class, to help prepare them for the school to work transition. Students 1-2 years from their exit year of high school, with good school attendance (minimum of 80%) are targeted as Work Center participants.

**LIFE SKILLS****18 weeks****Course No. 007842****1 credit**

This course is designed to help students develop skills needed to increase their ability to be independent in the home, school, community, and work environments. Instruction is provided in a small group setting with individualized attention. Students are introduced to and practice life skills in the key areas of hygiene and health habits, time management, safety, money and purchasing, and social skills/communication. In addition, instruction is based on Individualized Educational Plans with instruction adjusted in response to data collection. Much instruction is provided one on one.

**LIVING ON  
YOUR OWN  
18 weeks**

**Course No. 078249  
1 credit**

This course is designed to help students experience what life is like after graduation and to develop essential life management skills needed to make good decisions related to employment, money management, and housing. The class is taught as an ongoing independent living simulation.



**HIGH SCHOOL  
TRANSITION  
18 weeks**

**Course No. 8209  
1 credit**

The objective of this course is to work with upcoming freshmen to assist with transition to high school. The students will explore the opportunities present in high school and gain understanding of how to use these resources. The student will also work on developing personal goals to help guide their instruction towards their set goals

**SKILLS FOR  
EMPLOYMENT  
18 weeks**

**Course No. 9077  
1 credit**

The objective of this course is to give students some basic job knowledge and skills so that they can be better prepared for the Work Center and World of Work classes.

# TECHNOLOGY EDUCATION

Equal opportunities in career and technical education programs have been provided to persons without discrimination because of race, gender, religious preference, color, national origin, and/or disability.

## MATERIALS AND PROCESSES

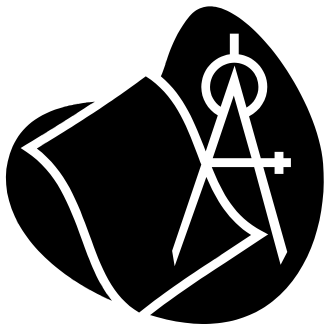
**TECHNOLOGY** Course No. 8433  
**Elective: Grades 9-12** 18 weeks  
**1 credit**

In this introductory course, students focus on industrial/technical materials and processes as they fabricate usable products and conduct experiments. Learning experiences include career analysis as well as the use of tools and equipment related to analysis, testing, and processing of metals, plastics, woods, ceramics, and composite materials. This single-period laboratory course is recommended for students interested in technical careers and others wishing to improve their consumer knowledge and technological literacy.

## TECHNICAL DRAWING AND DESIGN

Course No. 8435  
**Elective: Grades 9-12** 18 weeks  
**1 credit**

The basic mechanical drawing course provides the student with an introductory background to one of the basic communication techniques used by almost every industry. Students study and apply basic drafting skills and gain a background in fundamental drafting principles. Students will plan, design, and construct a prototype model of a new invention or innovation. AutoDESK Design Academy software will be used to provide the student with the latest in computer-aided design (CAD) technology. The student will learn how CAD applications are used in industry. It is recommended as a course for future architectural design, construction and manufacturing students.



## MANUFACTURING SYSTEMS/

**WELDING I** Course No. 8425/ 8672  
**Elective: Grades 10-12** 36 weeks  
**2 credits**  
**Prerequisite: Materials and Processes  
Technology**

Manufacturing Systems/Welding I is a 2-credit year-long, hands-on, skill building class designed to introduce the student to the basics of manufacturing. Students learn to safely and accurately use a variety of machine tools, jigs, and fixtures, and precision measuring tools. Students are provided with the opportunity to develop entry-level skills in machining, welding and fabricating using a variety of processes. Students work individually and in groups to complete activities and projects. Students gain hands-on experiences enabling them to develop employability skills and make informed career choices in manufacturing and related technical fields.

## CONSTRUCTION TECHNOLOGY/ BUILDING

**TRADES I** Course No. 8431/8515  
**Elective: Grades 10-12** 36 weeks  
**2 credits**  
**Prerequisite: Materials and Processes  
Technology**

In this single-period laboratory course, students design, build, and test structures and work with projects that help them to understand the jobs of architects, carpenters, electricians, plumbers, surveyors, contractors, masons, design engineers, and a variety of other construction careers. Building Trades I prepares students to erect, install, maintain, and repair buildings, and other structures using materials such as metal, wood, stone, brick, glass, concrete and composition substances. Students focus on developing skills in core safety and the masonry, carpentry, electricity, and plumbing professions.

## **ELECTRONIC SYSTEMS**

**I AND II**                      **Course No. 8412/ 8416**  
**Elective: Grades 10-12**                      **36 weeks**  
**2 credits**

**Prerequisite: Materials and Processes  
Technology or Technical  
Drawing & Design**

This 2-credit year-long course will provide students the opportunity to learn the basic principles of electricity and electronics. It provides information that will be beneficial to future electricians, commercial and residential wiring/cabling technicians, or students planning to take college engineering courses. Students will perform laboratory activities involving parallel and series wiring, electronic circuitry, operation of computer parallel interface, and robotic controls. Students will examine how electricity and electronics are involved in all aspects of industry, including planning, finance, management, technical and production skills and community, safety and environmental issues.

## **ARCHITECTURAL DRAWING**

**AND DESIGN**                      **Course No. 8437**  
**Elective: Grades 9-12**                      **18 weeks**  
**1 credit**

**Prerequisite: Technical Drawing and Design**

This course provides students the opportunity to learn more about the principles of architecture and related design practices and techniques. It provides information that will be beneficial to future architects, interior designers, homebuilders and any homeowner. Students will explore careers in architecture by creating a set of building plans for residential and/or commercial buildings. They will also plan, design, and construct a scale model of a residential or commercial structure and prepare a 3D computer animated walk-through of a building. AutoCAD Architecture and AutoDESK Revit Architecture software will be used to provide the student with the latest in computer-aided design (CAD) technology. The student will learn how CAD applications are used in industry.

## **COMPUTER SYSTEMS TECHNOLOGY**

**I AND II**                      **Course No. 8622/8623**  
**Elective: Grades 10-12**                      **36 weeks**  
**2 credits**

The Computer Systems Technology course is designed to provide entry-level training for computer technicians. Successful students can gain A+ Certification through Comp TIA, The Computer Technology Industry Association. The A+ certification is widely recognized in the computer industry, and significantly improves a computer technician's ability to secure and enhance employment opportunities. Examples of topics covered in the course are: Hardware Installation, Configuration and Upgrades; Diagnosing and Troubleshooting; Motherboards, Processors and Memory; Installation, Diagnosing and Troubleshooting Networks. The course will cover the current Comp TIA A+ objectives, [www.comptia.org](http://www.comptia.org).

## **COMPUTER NETWORKING HARDWARE OPERATIONS I-IV**

**Course No. 8542/ 8543/ 8544/ 8545**  
**Elective: Grades 10-12**                      **36 weeks**  
**2 credits**

**Prerequisite: Computer Systems Technology  
I and II or CIS**

The Computer Networking Hardware Operations course is designed to provide entry-level training for computer network technicians. Successful students can gain Net+ Certification through Comp TIA, the Computer Technology Industry Association. The Net+ Certification is widely recognized in the computer industry, and significantly improves a computer network technician's ability to secure and enhance employment opportunities. Examples of topics covered in the course are cabling types, Media and Topologies, Protocols and Standards, Network Implementation and Network Support. The course will cover the current Comp TIA Net+ Objectives, [www.comptia.org](http://www.comptia.org).

**ON-THE-JOB TRAINING CREDIT FOR  
TECHNOLOGY EDUCATION STUDENTS:  
Industrial Cooperative Training (ICT)**

Students enrolled in certain second-year Technology Education courses may elect to enroll in Industrial Cooperative Training and receive one additional credit toward graduation. The student must complete 296 hours of supervised job training to receive the ICT credit. Supervised hours worked during the summer can be included. Students enrolled in On-The-Job training can be exempted from the required Kinesiology class during the 11th and 12th grade. This exemption must be pre-approved by the Technology Job Training Coordinator.

**MANUFACTURING TRADES  
JOB TRAINING Course No. 84331  
Elective: Grades 11-12 36 weeks  
1 credit**

**Prerequisite: Enrollment in or successful  
completion of Manufacturing  
Systems/Welding I**

This option is available to students who are enrolled in, or who have successfully completed, Manufacturing Systems/Welding I. Students must successfully complete 296 hours of supervised on-the-job training. Job training prepares students for careers in welding, fabricating, machining, stamping, and related metal trade careers.

**CONSTRUCTION TRADES  
JOB TRAINING Course No. 84311  
Elective: Grades 11-12 36 weeks  
1 credit**

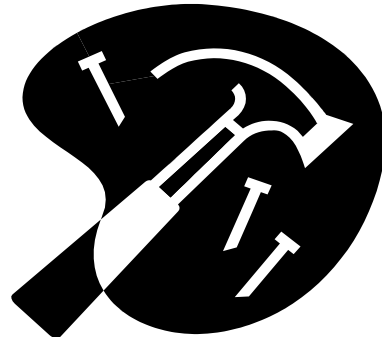
**Prerequisite: Enrollment in or successful  
completion Construction  
Technology/Building Trades I**

This option is available to students who are enrolled in, or who have successfully completed, Construction Technology/Building Trades I. Job training prepares students for careers in the Construction trades. Examples are carpentry, electrical, concrete and masonry, plumbing, and HVAC (heating and air conditioning).

**ARCHITECTURAL DESIGN/DRAFTING  
DESIGN TRAINING Course No. 84351  
Elective: Grades 11-12 18 weeks  
1 credit**

**Prerequisite: Enrollment in or successful  
completion of Architectural  
Drawing and Design**

This option is available to students who are enrolled in or who have successfully completed, Architectural Drawing and Design. Students must receive training which involves experiences in computer assisted drafting and design. This Job Training prepares students for careers in architectural design and drafting/design.



# Notes





