

High School Program of Studies



***2018-2019
Grades 9-12***

John Handley High School
425 Handley Boulevard
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jhhs.wps.k12.va.us

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INTRODUCTION

The high school program of studies provides comprehensive information regarding graduation requirements, diploma programs, and course offerings. Course descriptions, credits and pre-requisites are included in the Program of Studies. The Virginia State Department of Education accredits John Handley High School. 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 requirement. 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 may be earned in the following courses:

| English | Math | Science | Social Studies |
|---------|------------|---------------|----------------------------|
| Reading | Algebra I | Biology | World History/Geography I |
| Writing | Geometry | Chemistry | World History/Geography II |
| | Algebra II | Earth Science | VA & US History |

Promotion

Students working toward a **Standard or Advanced Studies Diploma** will be promoted based on credits earned:

| Grade Level | Credits Required |
|-------------|------------------|
| Sophomore | 5* |
| Junior | 11* |
| Senior | 17* |

***Tenth Grade:** Of the five credits, three must be credits required for graduation, one of which is English.

***Eleventh Grade:** Of the eleven credits, seven must be credits required for graduation, four of which must be English, Math, Science, and Social Studies.

***Twelfth Grade:** Of the seventeen credits, four credits must be earned in English, Math, Science, and Social Studies; sufficient credits (and verified credits) must be planned to ensure graduation in May.

Grading Scale

| Grade | Meaning | Value | GPA Points |
|----------|--------------|--------------|------------|
| A | Superior | 90-100 | 4 |
| B | Good | 80-89 | 3 |
| C | Satisfactory | 70-79 | 2 |
| D | Poor | 60-69 | 1 |
| F | Failing | 59 and below | 0 |

Class Rank

John Handley High School does not rank students.

GPA

Grade point average (GPA) is calculated by adding up the GPA point value for all final grades and then dividing by the total number of courses taken. Weighted courses require additional calculations to determine GPA. See page 8.

NOTES:

- *High school credit is awarded for high school subjects taken in middle school (e.g. Algebra I, Geometry, Algebra II, foreign language and certain career/technical courses).*
- *Students may repeat a course to earn credit and/or improve skills. The original and repeat courses and grades will be reflected on the student's transcript. The original course grade will not be calculated into the student's grade point average. The repeat course grade will be calculated into the student's grade point average.*
- *Class of 2019: Students at John Handley High School who are enrolled in Advanced Placement courses, courses that prepare the student to take a corresponding Advanced Placement exam, and/or Mountain Vista Governor's School courses will receive additional weighted quality points to be added to the base GPA if they sit for the Advanced Placement exam. Each student will receive an additional 0.17 point added to the base GPA for each weighted course path.*

DIPLOMA PROGRAMS

The Virginia Department of Education and John Handley High School offer three diploma programs to meet the goals of the individual student:

- Standard Studies
- Advanced Studies
- Applied Studies

Students with disabilities may qualify for an Applied Studies Diploma.

General 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. Also, some students with Individual Education Plans (IEP) who do not meet the requirements for a diploma may receive a Certificate of Program Completion.

Please see pages 5-6 for the requirements for the Standard Studies and Advanced Studies diplomas.



STANDARD STUDIES DIPLOMA

| | | Classes of 2019, 2020 & 2021 | Class of 2022 |
|--------------------------------|------------------|---------------------------------|------------------|
| Discipline | Credits Required | Verified Credits | Verified Credits |
| English | 4 | 2 | 2 |
| Math [Note 1] | 3 | 1 | 1 |
| Science [Note 2] | 3 | 1 | 1 |
| Social Studies [Note 3] | 3 | 1 | 1 |
| Physical Ed./Health | 2 | | |
| Fine Art or CTE [Note 4] | 2 | | |
| Econ. & Finance | 1 | | |
| Electives [Note 5] | 4 | | |
| Student Selected Test [Note 6] | | 1 | |
| Total | 22 | 6 | 5 |

Note 1:

Courses completed to satisfy this requirement shall include at least three different course selections from: Algebra; 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 science, 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:

Credits earned for this requirement shall include one credit in fine or performing arts or career and technical education.

Note 5:

Courses to satisfy this requirement shall include at least two sequential electives (such as Art Foundations and Drawing & Painting, or Materials & Processes and Welding)

Note 6:

Students in the classes of 2019, 2020 and 2021 may utilize additional tests for earning verified credit in computer science, technology, career or technical education, economics or other areas.

Beginning with students entering ninth grade for the first time in 2013-2014, a student must also: (1) earn a board-approved career and technical education credential to graduate with a Standard Diploma, (2) successfully complete one virtual course, which may be non-credit bearing.

ADVANCED STUDIES DIPLOMA

| Discipline | Credits Required | Classes of 2019, 2020 & 2021 | Class of 2022 |
|---------------------------------------|------------------|---------------------------------|------------------|
| | | Verified Credits | Verified Credits |
| English | 4 | 2 | 2 |
| Math <i>[Note 1]</i> | 4 | 2 | 1 |
| Science <i>[Note 2]</i> | 4 | 2 | 1 |
| Social Studies <i>[Note 3]</i> | 4 | 2 | 1 |
| Physical Ed./Health | 2 | | |
| Foreign Language <i>[Note 4]</i> | 3 | | |
| Fine Art or CTE | 1 | | |
| Econ. & Finance | 1 | | |
| Electives | 3 | | |
| Student Selected Test <i>[Note 5]</i> | | 1 | |
| Total | 26 | 9 | 5 |

Note 1:

Courses completed to satisfy this requirement shall include at least four 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 science, 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:

Students in the classes of 2019, 2020 and 2021 may utilize additional tests for earning verified credit in computer science, technology, career or technical education, economics or other areas.

Beginning with students entering ninth grade for the first time in 2013-2014, a student must successfully complete one virtual course, which may be non-credit bearing, to graduate with an Advanced Studies Diploma.

Computation of GPA and Weighted Grades

John Handley High School is in a transition period between two different methods for calculating grade point averages.

Students entering high school prior to fall of the 2016-2017 school year

Calculating Grade Point Average (GPA)

A student's grade point average will be computed in the normal way as follows:

Total grade points accumulated will be divided by the total credits (courses) attempted and from that a grade point average will be derived. Thus a student with all A's would have a 4.0 average; students with all B's would have a 3.0, and so on. Students attending John Handley High School who are enrolled in Advanced Placement courses, courses that prepare the student to take a corresponding Advanced Placement exam, and/or Mountain Vista Governor's School courses will receive additional weighted quality points to be added to the base GPA; however, MVGS courses which are not AP, Dual Enrollment, and do not have a comparable weighted course at John Handley High School will not be weighted. Starting in the fall of 2017, each student will receive an additional 0.17 quality point added to the base GPA for each weighted course passed, only if the student has taken the associated Advanced Placement exam.

$$\text{Base GPA} = \frac{\text{Total Regular Quality Points Earned}}{\text{\# of Courses Taken}}$$

Weighted GPA = Base GPA + .17 (Number of weighted courses with the associated Advanced Placement exam taken.)

1. There shall be no reportable class rank.
2. A class profile will indicate the percentage of graduates whose grade point average falls within various grade point averages. The class profile will be submitted to colleges upon the request of the student/parent.

Students entering high school in the fall of the 2016-2017 school year

Students' grade point average will be determined by assigning point values to courses as follows:

Points Per Semester Credit

| <u>Advanced Placement and AP Exam</u> | <u>Dual Enrollment, MVGS Advanced Placement Courses</u> | <u>All Other Courses</u> |
|---|---|--------------------------|
| A - 5 | A - 4.5 | A - 4 |
| B - 4 | B - 3.5 | B - 3 |
| C - 3 | C - 2.5 | C - 2 |
| D - 1 | D - 1.0 | D - 1 |
| F - 0 | F - 0 | F - 0 |

Calculating Grade Point Average (GPA)

A student's grade point average will be computed in the normal way as follows:

To calculate the GPA for a given semester, total the Quality Points (QP) earned for the grade in each class. Divide this sum by the number of classes taken. For example, if a student had 4 graded classes and earned two "A's" and two "B's," the calculation would be $4 + 4 + 3 + 3 = 14$ Total Quality Points which, when divided by four total classes, yields a semester GPA of 3.5.

If a student takes an Advanced Placement (AP), Dual Enrollment (whether or not community college enrollment was completed), or MVGS course, each grade is worth more QP; however, MVGS courses which are not AP, Dual Enrollment, and do not have a comparable weighted course at John Handley High School will not be weighted. Using the previous example, if the first "A" was in an AP/Dual Enrollment course and the last "B" was in an AP/Dual Enrollment course, the calculation would be $4.5 + 4 + 3 + 3.5 = 15$ Total Quality Points. When divided by four classes, this total yields a semester GPA of 3.75. If the student took the AP exam, the calculation would be $5 + 4 + 3 + 4 = 16$ Total Quality Points. When divided by four classes, this total yields a semester GPA of 4.0.

The current High School Program of Studies includes a complete listing of Advanced Placement and Dual Enrollment courses. The Grade Point Average weight for every course in the program of studies is listed in the course description. Additionally, if the course is weighted at 4.5 or 5.0 for an "A", the weight is reflected in the course title as well. In order to receive weighted credit for an Advanced Placement course, the student must take the associated Advanced Placement exam. Students enrolled in Advanced Placement courses that elect not to take the associated Advanced Placement exam will be awarded 4.5 quality points.

Students may repeat a course to earn credit and/or improve skills. The original and repeat courses and grades will be reflected on the student’s transcript. The original course grade will not be calculated into the student’s grade point average. The repeat course grade will calculate into the student’s grade point average.

Transfer Students

1. If a particular grade is weighted at the school from which a student transfers and the Winchester Public Schools weights the grade for the same course, the transferred grade will be weighted.
2. If a particular grade is weighted at the school from which a student transfers but the Winchester Public Schools does not weight the grade for the same course, the transferred grade will not be weighted.
3. If a course is noted as an Advanced Placement or Dual Enrollment course, and the same course is weighted in the Winchester Public Schools, the grade will be weighted even if the other division did not weight the course.
4. If a course is not weighted and is not noted as an Advanced Placement, or Dual Enrollment course, the grade will not be weighted.
5. In any case in which the appropriate GPA weight for a transfer course is unclear, superintendent’s designee will research the content and rigor of the course in question and will determine the weight of the course.

Diploma & GPA Calculation Transitions: At a Glance

| | | |
|---------------|-------------------------|-----------------------------|
| Class of 2022 | Advanced Diploma | |
| | Credits | GPA Calculation |
| | 26 (5 Verified Credits) | 1.0 QP weight with AP Exam |
| | Standard Diploma | |
| | Credits | GPA Calculation |
| | 22 (5 Verified Credits) | 1.0 QP weight with AP Exam |
| Class of 2021 | Advanced Diploma | |
| | Credits | GPA Calculation |
| | 26 (9 Verified Credits) | 1.0 QP weight with AP Exam |
| | Standard Diploma | |
| | Credits | GPA Calculation |
| | 22 (6 Verified Credits) | 1.0 QP weight with AP Exam |
| Class of 2020 | Advanced Diploma | |
| | Credits | GPA Calculation |
| | 26 (9 Verified Credits) | 1.0 QP weight with AP Exam |
| | Standard Diploma | |
| | Credits | GPA Calculation |
| | 22 (6 Verified Credits) | 1.0 QP weight with AP Exam |
| Class of 2019 | Advanced Diploma | |
| | Credits | GPA Calculation |
| | 26 (9 Verified Credits) | 0.17 QP/course with AP Exam |
| | Standard Diploma | |
| | Credits | GPA Calculation |
| | 22 (6 Verified Credits) | 0.17 QP/course with AP Exam |

Diploma Seals

Students meeting specific requirements for graduation and demonstrating exemplary performance may receive diploma seals for recognition. The Virginia Department of Education makes available to local school divisions the following seals:

Governor's Seal – Awarded to students who meet the following:

- Complete the requirements for an Advanced Studies Diploma with an average grade of "B" or better **and**
- Successfully complete college-level coursework that will earn the student at least nine transferable college credits in Advanced Placement (AP), International Baccalaureate (IB), Cambridge, or dual enrollment courses.

Board of Education Seal – Awarded to students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an average grade of "A" beginning with the ninth-grade class of 2006-2007 and beyond.

Board of Education's Career & Technical Education Seal – Awarded to students who:

- Earn a Standard or Advanced Studies Diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain a "B" or better average in those courses.
- OR pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade or professional association.
- OR acquire a professional license in that career and technical education field from the Commonwealth of Virginia.
- The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.

Board of Education's Advanced Mathematics & Technology Seal – Awarded to students who meet the following:

- Earn either a Standard or Advanced Studies Diploma and satisfy all of the mathematics requirements for the Advanced Studies Diploma (four units of credit including Algebra II; two verified units of credit) with a "B" average or better; **and either:**
- Pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association
- OR acquire a professional license in a career and technical education field from the Commonwealth of Virginia
- OR pass an examination approved by the board that confers college-level credit in a technology or computer science area.
- The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.

Board of Education's Excellence in Civics Education Seal – Awarded to students who meet each of the following four criteria:

- Satisfy the requirement to earn a Modified Standard Diploma, a Standard Diploma or an Advanced Studies Diploma
- Complete Virginia & United States History and Virginia & United States Government courses with a grade of "B" or higher
- Complete 50 hours of voluntary participation in community service or extracurricular activities, such as volunteering for a charitable or religious organization that provides services to the poor, sick or less fortunate; participating in Boy Scouts, Girl Scouts or similar youth organizations; participating in Junior Reserve Officer Training Corps (JROTC); participating in political campaigns, government internships, Boys State, Girls State or Model General Assembly; and participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation will be deemed to have met this community service requirement.
- Have good attendance and no disciplinary infractions as determined by local school board policies.

Board of Education's Bi-literacy Seal – This seal certifies attainment of a high level of proficiency by a graduating high school student in one or more languages in addition to English, and certifies that the graduate meets of the following criteria:

- Earn a Board of Education-approved diploma.
- Pass all required End-of-Course Assessments in English reading and writing at the proficient or higher level.
- Be proficient at the intermediate-mid level or higher in one or more languages other than English, as demonstrated through an assessment from a list to be approved by the Superintendent of Public Instruction.

Scheduling and Special Course Information

Student Schedule Adjustments

A deadline for course request changes will be established each school year (generally the 1st week of each semester). Special circumstances may necessitate a change in course selections after this deadline such as:

- Incomplete schedule
- Unmet prerequisite requirement
- Completion of coursework during summer academy
- Level changes may be considered on a case-by-case basis in consultation with the student, parent, teacher and school counselor.

Other guidelines for schedule adjustments include:

- Requests from students or their parents for a change in teachers will not be honored because such changes impact master schedule balance.
- Considerations will be given to requests from students assigned to repeat a course with a teacher under whom they have previously failed.
- Second semester schedule adjustments may be required if a student did not earn credit for a first semester course and no longer meets prerequisite requirements.
- Final approval for schedule change requests rests with the principal.

Dual Enrollment

Students at John Handley High School may earn college credit from Lord Fairfax Community College or other area colleges/universities through dual enrollment. Dual enrollment provides a wider range of course options, sharpens students' general preparedness for college, and allows high school students to earn college credit which may be transferred to other colleges and universities. 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. Dual enrollment opportunities vary in format including:

- Courses taught at the college
- Courses taught at the local high schools by credentialed high school instructors.

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 (*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.

Winchester Public Schools, JHHS and Lord Fairfax Community College are working collaboratively to expand opportunities that would enable students to complete an associate's degree or general education certificate concurrently with a high school diploma. Additional information is available through the JHHS Guidance Department. John Handley High School offered over 25 dual-enrollment courses (core area, career and technical, and AP) during the 2018-2019 school year. Dual enrollment offerings may vary from year to year. Projected dual enrollment courses for the 2019-2020 school year are noted as such within the department course descriptions and are subject to change based on the credentials of teaching staff.

Advanced Placement (AP)

- AP courses, taught by dedicated and committed high school teachers, lay the groundwork for students to succeed at the collegiate level.
- Students are strongly encouraged to participate in AP examinations.
- WPS will assume the cost of AP testing for all students who choose to take an AP exam.
- AP exams are administered in May of each year on national test dates set by the AP Program.
- Students who wish to sit for an AP exam, but are not enrolled in the corresponding JHHS AP course should see the high school AP Coordinator at the start of the school year.
- Careful consideration should be given in selecting AP courses as they are designed for students who have mastered the basic skills and are able to learn independently.
- Completion of these courses, with acceptable AP exam scores, may lead to credit and/or advanced placement at colleges and universities.

Virtual Virginia

- Virtual Virginia provides a variety of Advanced Placement (AP) courses, enabling students to earn college credit for courses not offered through their high school
- Applications for Virtual Virginia courses are available in the School Counseling Office
- All Virtual Virginia applications must be turned in to the School Counseling Office by May 25, 2018
- Virtual Virginia enrollment closes each school year on August 1.
- The Virginia Department of Education reimburses school divisions for tuition and test fees for students who sign an Early College Scholars Agreement
- The Early College Scholars program allows eligible high school students to earn at least 15 hours of transferable college credit while completing the requirements for an Advanced Studies Diploma
- To qualify for the Early College Scholars program, a student must:
 - Have a "B" average or better;
 - Be pursuing an Advanced Studies Diploma; and
 - Take and complete college-level course work (e.g., Advanced Placement, International Baccalaureate, Cambridge, or dual enrollment) that will earn at least 15 transferable college credits.

Mountain Vista Governor's School (MVGS)

- The mission of Mountain Vista Governor's School 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 over 100 students from the region on two campuses.
- 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.
- MVGS Courses which are not AP dual enrollment and do not have a comparable weighted course at JHHS will not be weighted.
- [Course offerings can be found at www.mvgshome.org](http://www.mvgshome.org)

Trades Academy

- Upon successful completion of this 1 year course, students will be Career and Technical Education Completers in Industrial Maintenance Technician I and Maintenance Technician II.
- The program provides students the opportunity to learn skills in welding, HVAC, hydraulics/pneumatics and electricity. Students also will learn skills related to a variety of industrial processes.
- Students will earn 31 college credits and complete a Career Studies Certificate in EPA CFC (Environmental Protection Agency Chlorofluorocarbon Certificate) and Electricity.
- Students participate in 4.5 hours of instruction each day at Lord Fairfax Community College and return to Handley for afternoon coursework and /or related job experiences.
- This course is intended for seniors and requires an application and acceptance process for the 3 seats that are available to John Handley High School students.

Independent Study and Credit Recovery Policy

Independent Study

- WPS may elect to offer independent courses that provide fewer than 140 clock-hours of instruction and award a standard 1.0 credit if the course meets the conditions outlined in this section of the regulation. The total number of standard credits that can be achieved via this waiver is four. If extenuating circumstances require additional standard credits that can be achieved via this waiver, the assistant superintendent's approval is required.
- With the exception of the clock-hour requirements, these courses shall meet all existing WPS regulations governing high school credit courses. Independent Study courses shall be graded on a pass-fail basis only. Students who wish to retake a course to improve their grade point average shall not be allowed to use Independent Study as an option and instead should repeat the full course in a subsequent school year or in a summer session.

Credit Recovery Option

With principal approval, high school students may pursue the Credit Recovery Option if the following criteria are met:

- The student previously completed the course through a WPS program and earned a failing grade (F).
- The high school is able to provide the resources, including a teacher with the required licensure and endorsements (in the area of the coursework) to facilitate the study for credit recovery.
- The assigned teacher shall consider the standards a student previously mastered, as indicated by the previous teacher, standardized assessment, or other locally developed assessment and may tailor course requirements based on previous learning.
- Successful completion of Credit Recovery Option will be assigned a grade of 60/D.
- Credit Recovery Option must be completed in the subsequent semester.

Recommended For College-Bound Students

Preliminary Scholastic Aptitude Test (PSAT)

- The PSAT measures verbal and math reasoning skills as well as writing skills.
- 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.
- The PSAT is required for all 10th graders and 11th graders who did not take it in 10th grade. The testing takes place in the fall during the school day at no cost to the student.
- Eleventh grade students can enter special scholarship competitions such as the National Merit Scholarship Qualifying Test.

SAT Reasoning Test (SAT)

- The SAT Reasoning Test measures critical reading, mathematics, and writing skills.
- Standardized test scores such as the SAT are often required as part of the college admissions process.
- Students are encouraged to sit for the SAT in eleventh grade and may repeat the test two or more times.
- The SAT Reasoning and SAT Subject tests are given several times each year at local high schools.
- Students must register online approximately four weeks prior to the test date at www.collegeboard.com.
- Fee waivers are available for eligible students.

SAT Subject Tests

- Subject tests measure students' knowledge and skills in a particular subject area and their ability to apply that knowledge.
- Subject tests should be taken at the end of the completion of the high school course.
- Not all colleges require SAT Subject Tests.
- Students should check with each college in which they have interest.
- Students may register to take up to three SAT Subject Tests on one test date.
- Preparation materials are available in the school counseling office and online on The College Board website.

American College Test (ACT)

- The ACT measures academic achievement in English, mathematics, reading, and science.
- Students may elect to take the writing subtest (students should check with their colleges of interest to see if the writing test is required).
- Most colleges accept ACT and/or SAT scores for admission purposes.
- [Registration materials and study guides are available in the school counseling office and online at \[www.actstudent.org\]\(http://www.actstudent.org\).](#)
- Students may find it advantageous to take both the ACT and SAT as colleges will generally utilize the best scores.

NCAA Eligibility

- Students who wish to participate in NCAA Division I or II athletics in college must be certified by the NCAA Eligibility Center.
- Students must qualify academically and be cleared as an amateur student-athlete.
- NCAA academic eligibility is determined, in part, by performance in approved core courses as reflected on the student's official transcript.
- JHHS approved core course are designated NCAA in the course catalog.
- [For more information, students should visit \[www.eligibilitycenter.org\]\(http://www.eligibilitycenter.org\).](#)

Career and Technical Education

Winchester Public School Division's Department of Career and Technical Education (CTE) offers a variety of career and technical programs to all students at the middle and high school levels. The program areas include the following:

- Business
- Information Technology
- Health and Medical Sciences
- Marketing
- Technology Education
- Trade and Industrial Education

CTE Dual Enrollment opportunities also are available for students who are entering the workforce and/or post-secondary education through an articulation agreement with the Lord Fairfax Community College.

Continuous Non-Discrimination Notice

Winchester Public Schools does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups. Please contact the individuals below regarding inquiries on our non-discrimination policies:

Title IX Coordinator

Kristin Tuttle
Director of Human Resources
12 N. Washington Street
Winchester, VA 22601
(540) 667-4253

Section 504 Coordinator

Douglas Joyner
Director of Student Services
12 N. Washington Street
Winchester, VA 22601
(540) 667-4253

Art

| Art Foundations | | Course No. H8070ES | |
|---|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| <p>This course is offered to all students who have not taken art at the high school level. This course is a requirement for all other upper level art courses taught here at John Handley High School. 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 the history of art and contemporary art will be included. Students will be required to keep a sketchbook with drawing and writing assignments throughout the semester.</p> | | | |

| Drawing & Painting I | | Course No. H8081ES | |
|---|--------------------------------------|---------------------------|-----------------|
| Elective | Prerequisite: Art Foundations | Semester | 1 credit |
| <p>In Drawing & Painting I, students will develop techniques in 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. Students will be required to keep a sketchbook with drawing and writing assignments throughout the semester.</p> | | | |

| Drawing & Painting II | | Course No. H8082ES | |
|--|---|---------------------------|-----------------|
| Elective | Prerequisite: Drawing & Painting I | Semester | 1 credit |
| <p>This course helps students improve on skills & techniques learned from Drawing & Painting I. Through traditional subject matter, students explore a range of drawing & painting materials and techniques. Composition and rendering skills are emphasized, various wet and dry medium are used. Students will begin to work on projects based on themes with an end goal of producing a portfolio. Students will be required to keep a sketchbook with drawing and writing assignments throughout the semester.</p> | | | |

| Sculpture I | | Course No. H8091ES | |
|---|--------------------------------------|---------------------------|-----------------|
| Elective | Prerequisite: Art Foundations | Semester | 1 credit |
| <p>Sculpture I explores ceramics, plaster/stone carving, figure modeling out of clay, mold-making, and woodworking. The program covers a broad range of technical areas and conceptual thinking. 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. Students will be required to keep a sketchbook with drawing and writing assignments throughout the semester.</p> | | | |

| Sculpture II | | Course No. H8092ES | |
|---|----------------------------------|---------------------------|-----------------|
| Elective | Prerequisite: Sculpture I | Semester | 1 credit |
| <p>This course helps students improve on skills & techniques learned from Sculpture I. Through traditional subject matter, students explore a range of sculpture materials and techniques. Composition and skills are emphasized, as well as various medium are used. Students will begin to work on projects based on themes with an end goal of producing a portfolio. Students will be required to keep a sketchbook with drawing and writing assignments throughout the semester.</p> | | | |

| AP Studio Art: 2-D Design | | Course No. H8101AS | |
|--|--|---------------------------|-----------------|
| Elective: Grades 11-12 | Prerequisite: Art Foundations, 3 Other Art Courses and Portfolio Review | Semester | 1 credit |
| <p>The course is designed as a performance based studio experience for the dedicated Advanced Photography/Art student who wishes to continue a rigorous study of photography. 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. They will be introduced to new photographers, digital artists, and more sophisticated techniques as points of departure to create work that reflects their spirit and vision. This course provides direction for the highly motivated photography 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. Students will be required to keep a sketchbook with drawing and writing assignments throughout the semester. Summer projects required for this course. This course meets daily in the fall semester but in order to complete the course, students will be required to submit a portfolio at the end of the spring semester.</p> | | | |

| AP Studio Art: 3-D Design | | Course No. H8102AS | |
|---|--|---------------------------|-----------------|
| Elective: Grades 11-12 | Prerequisite: Art Foundations, 3 Other Art Courses and Portfolio Review | Semester | 1 credit |
| <p>The AP Studio Art 3-D Design course is for highly motivated students seriously interested in art. In this course, students 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 students learn to express themselves in his/her 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. Eighteen to 24 Ceramics pieces are required to complete the Quality, Concentration and Breadth sections of the portfolio. Students will be required to keep a sketchbook with drawing and writing assignments throughout the semester. Summer projects required for this course. This course meets daily in the fall semester but in order to complete the course, students will be required to submit a portfolio at the end of the spring semester.</p> | | | |

Business and Marketing

| Economics & Personal Finance | | Course No. H6010RS | |
|--|-------------------------------|--------------------|----------|
| Required | Recommended Grades: 10 and 11 | Semester | 1 credit |
| <p>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.</p> | | | |

| Entrepreneurship | | Course No. H6260ES | |
|---|--------------------|--------------------|----------|
| Elective: Grades 9-10 | Prerequisite: none | Semester | 1 credit |
| <p>This course introduces students to the exciting world of creating, owning, and launching their own business. Students will learn concepts and techniques for planning an innovative business and living the entrepreneurial lifestyle. 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.</p> | | | |

| Accounting | | Course No. H6091SS | |
|---|--------------------|--------------------|----------|
| Elective: Grades 10-12 | Prerequisite: none | Semester | 1 credit |
| <p>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.</p> | | | |

| Advanced Accounting | | Course No. H6092VS | |
|--|--------------------------|--------------------|----------|
| Elective: Grades 10-12 | Prerequisite: Accounting | 18 weeks | 1 credit |
| <p>Advanced Accounting students gain knowledge of advanced accounting principles, procedures, and techniques used to solve business problems and make financial decisions. Students work in a technology-integrated environment, using accounting and spreadsheet software to analyze, synthesize, evaluate, and interpret business financial data related to inventory, fixed assets, notes/accounts payable and receivable, implementation of a partnership and a corporation, and other specialized accounting systems. Using authentic workplace scenarios that reflect current industry trends and standards, students analyze financial data and acquire knowledge of business ethics. 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.</p> | | | |

| Keyboarding Applications | | Course No. H6000RS | |
|--|--------------------|--------------------|----------|
| Elective: Grades 9-12 | Prerequisite: none | Semester | 1 credit |
| <p>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.</p> | | | |

| Computer Information Systems (CIS) | | Course No. H6201DS | |
|--|---|---------------------------|-----------------|
| Elective: Grades 9-12, LFCC DE | Prerequisite: Keyboarding 25 wpm | Semester | 1 credit |
| <p>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®, 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 Office Specialist (MOS) proficiency exams. 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.</p> | | | |

| Advanced Computer Information Systems | | Course No. H6202DS | |
|--|--------------------------|---------------------------|-----------------|
| Elective: Grades 10-12, LFCC DE | Prerequisite: CIS | Semester | 1 credit |
| <p>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 Office Specialist (MOS) proficiency exams. 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.</p> | | | |

| Design, Multimedia, & Web Technologies (DMW) | | Course No. H6221DS | |
|---|---------------------------|---------------------------|-----------------|
| Elective: Grades 10-12, DE | Prerequisite: none | Semester | 1 credit |
| <p>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. 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.</p> | | | |

| Advanced Design, Multimedia, & Web Technologies | | Course No. H6222VS | |
|--|--------------------------|---------------------------|-----------------|
| Elective: Grades 11-12, DE | Prerequisite: DMW | Semester | 1 credit |
| <p>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. 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.</p> | | | |

| Medical Systems Administration | | Course No. H6160DS | |
|--|---------------------------|---------------------------|-----------------|
| Elective: Grades 11-12, DE | Prerequisite: None | Semester | 1 credit |
| <p>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. 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.</p> | | | |

| Cooperative Office Education (COE) | | Course No. H9120EY | |
|---|--|--------------------|-----------------|
| Elective: Grades 11-12 | Co-requisite: Enrollment in specific Business courses | Year Long | 1 credit |
| <p>Cooperative Office Education is a career preparation work-based learning method that combines Career & Technical Education classroom instruction with paid employment that is directly related to the student's plan of study. The school and the employer plan, coordinate, and supervise the instruction and employment so that each contributes directly to the student's career objectives and employability. Students earn credit toward graduation for cooperative education experiences, and they normally work between 11 and 15 hours per week to achieve a minimum of 396 hours. COE is available to students who are enrolled in Finance, Computer Information Systems, Advanced Computer Information Systems, Design, Multimedia, & Web Technologies (DMW), Advanced DMW, Medical Systems Administration, Accounting and Advanced Accounting. Applications for the COE program are available from the School Counseling Office or the COE Coordinator.</p> | | | |

| Marketing | | Course No. H6231ES | |
|--|---------------------------|--------------------|-----------------|
| Elective: Grades 10-12 | Prerequisite: none | Semester | 1 credit |
| <p>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.</p> | | | |

| Advanced Marketing | | Course No. H6232VS | |
|--|--------------------------------|--------------------|-----------------|
| Elective: Grades 11-12 | Prerequisite: Marketing | Semester | 1 credit |
| <p>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.</p> | | | |

| Fashion Marketing | | Course No. H6240ES | |
|---|--|--------------------|-----------------|
| Elective: Grades 10-12 | Prerequisite: Preferred Principles of Business & Marketing or Marketing | Semester | 1 credit |
| <p>Fashion-minded students learn how famous designers, clothing manufacturers, and retailers market their products to the customer. Fashion Marketing takes students on a journey through the glamorous world of fashion. Students will live through the history of fashion to current trends in the marketplace. Students will learn to analyze how fashion affects the economy as well as the lifestyle and "mood" of the country. Students will also study visual merchandising, economics, and marketing in the fashion industry while exploring related careers. Students are encouraged to participate in DECA, the co-curricular student organization, which 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..</p> | | | |

| Sports Entertainment Marketing | | Course No. H6250ES | |
|--|--|---------------------------|-----------------|
| Elective: Grades 10-12 | Prerequisite: Preferred Principles of Business and Marketing or Marketing | Semester | 1 credit |
| <p>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.</p> | | | |

| Marketing Cooperative Education | | Course No. H9130ES | |
|---|--|---------------------------|-----------------|
| Elective: Grades 11-12 | Co-requisite: Enrollment in Marketing, Advanced Marketing or Sports and Entertainment Marketing | Year Long | 1 credit |
| <p>Marketing Cooperative Education is a career preparation work-based learning method that combines Career & Technical Education classroom instruction with paid employment that is directly related to the student's plan of study. The school and the employer plan, coordinate, and supervise the instruction and employment so that each contributes directly to the student's career objectives and employability. Students earn credit toward graduation for cooperative education experiences, and they normally work between 11 and 15 hours per week to achieve a minimum of 396 hours. Marketing Co-op is available to students who are enrolled in Marketing, Advanced Marketing, Sports and Entertainment Marketing, or Fashion Marketing. Applications for the Co-op program are available from the School Counseling Office or the Co-op Coordinator.</p> | | | |

| Principles of Business and Marketing | | Course No. H6020ES | |
|--|---------------------------|---------------------------|-----------------|
| Elective: Grades 9-12 | Prerequisite: None | Semester | 1 credit |
| <p>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 and 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.</p> | | | |

Education and Training

| Virginia Teachers for Tomorrow I | | Course No. H6921ES | |
|---|--------------------|--------------------|----------|
| Elective: Grades 11-12 | Prerequisite: none | Semester | 1 credit |
| Virginia Teachers for Tomorrow (VTFT) fosters student interest, understanding, and appreciation of the teaching profession and allows secondary students to explore careers in education. Students build a foundation for teaching; learn the history, structure and governance of teaching; apply professional teaching techniques in the VTFT classroom; and reflect on their teaching experiences. Additional educational leadership opportunities are offered through the student organization, Future Educators Association. | | | |

| Virginia Teachers for Tomorrow II | | Course No. H6922ES | |
|---|--|--------------------|----------|
| Elective: Grades 11-12 | Prerequisite: VA Teachers for Tomorrow I | Semester | 1 credit |
| Students continue to explore careers in the Education and Training Cluster and pathways. This course provides the opportunity for students to prepare for careers in education as they research postsecondary options, learn about the process of teacher certification in Virginia, and participate in a practicum experience. | | | |

| Apprenticeship – LMC | | Course No. H9160ES | |
|---|--|--------------------|----------|
| Elective: Grades 11-12 | Prerequisite: Received a B or higher in sophomore/junior English, completed application, and recommendation from a teacher or school counselor | Semester | 1 credit |
| Under the supervision of the media specialists, this supervised, independent studies course will provide students with experiences in providing library media services for students and teachers. Students will also have the opportunity to read books related to other classes they are taking and for pleasure and then write reviews for social media sites and print publications. This course is highly recommended for students considering careers as library media specialists, teachers, writers and technology resource specialists. | | | |

| Peer Tutor/Bilingual Tutor | | Course No. H9040ES | |
|---|---------------------------|--------------------|----------|
| Elective: Grades 11 & 12 | Prerequisite: Application | Semester | 1 credit |
| This course offers students an opportunity to provide support for peers in a classroom setting. Students will be paired with teachers and courses where they excel and have particular interest. Bilingual Tutors will also be paired with teachers and courses where there is need for language support for English Language Learners. Tutors will reinforce basic skills that traditionally lead to academic success including study habits, time management, problem solving techniques, and teacher-student interactions. They also help students with classroom lessons, homework assignments, and test preparation. Peer tutors must complete an application which includes faculty recommendations. | | | |

| Peer Mentoring | | Course No. H9050ES | |
|--|--------------------|--------------------|----------|
| Elective: Grades 11-12 | Prerequisite: None | Semester | 1 credit |
| This course is designed for students interested in teaching, counseling and/or working with children. Peer Mentoring teaches skills in leadership, communication, collaboration and responsibility. Peer mentors will travel to an assigned local elementary school where they will work with students to improve their academic and/or social skills. Student must be in good standing academically and behaviorally and must be recommended by school counselor. | | | |

| Academic Enhancement | | Course No. H9030ES | |
|--|---------------------------|---------------------------|-----------------|
| Elective: Grades 9-12 | Prerequisite: None | Semester | 1 credit |
| <p>This course may be recommended/required by an administrator or school counselor based on a student's academic history. The course focuses on organization, test taking skills and overall improved academic performance. Part of each class will include completing missing assignments, planning/completing long range assignments, test preparation/remediation and direct instruction that includes reading, writing, and test taking skills. The Academic Enhancement teacher will maintain communication with the student's academic teachers. Students in this course may be taking a credit recovery course. This is a pass/fail course.</p> | | | |

English

| English 1 | | Course No. H1010RS | |
|---|--------------------|--------------------|----------|
| Required: NCAA | Prerequisite: none | Semester | 1 credit |
| <p>This course emphasizes skills in oral communication, writing, and the genres of literature. Paraphrasing, summarizing, giving and following directions, relaying opinions and responding to books will be stressed. Writing includes note taking, completing standardized forms, understanding instructions, grammar, mechanics and usage as they relate to paragraphs, letters, essays, and longer compositions. Students will analyze a variety of media and study a variety of texts including fiction, non-fiction, drama, and poetry. Students will learn to cite sources and incorporate them in a research product.</p> | | | |

| Honors English 1 | | Course No. H1011HS | |
|--|---|--------------------|----------|
| Required: NCAA | Prerequisite: Grade of B or higher in previous English course and English teacher recommendation. | Semester | 1 credit |
| <p>This accelerated course will engage students in analytical reading and writing, close reading, discussion, research and composition of a variety of fiction and non-fiction texts. Students will produce, analyze, and evaluate a variety of media and extend vocabulary through study. Oral presentations will be included in the coursework. Students should expect both rigor and challenge in the course.</p> | | | |

| English 2 | | Course No. H1022RS | |
|--|-------------------------|--------------------|----------|
| Required: NCAA | Prerequisite: English 1 | Semester | 1 credit |
| <p>Students will participate in small group learning activities and analyze, produce, and examine differences in visual and auditory messages. Students will extend vocabulary through study of word origins and derivatives. Reading will encompass interpretation of non-fiction texts as well as literature from different cultures and eras. Students will collect information to create a research product and will write to persuade, interpret, analyze, and explain.</p> | | | |

| Honors English 2 | | Course No. H1022HS | |
|--|---|--------------------|----------|
| Required: NCAA | Prerequisite: English 1 and Grade of B or higher in previous English course and English teacher recommendation. | Semester | 1 credit |
| <p>This accelerated course will engage students to think deeply and richly about both fiction and nonfiction texts. An analysis of a variety of media will continue with an emphasis on argument. The course places a heavy emphasis on a variety of writing skills. It also introduces students to concepts that will be addressed more thoroughly in the Advanced Placement Language and Literature course. Students should expect a rigorous, challenging, active experience in the course.</p> | | | |

| English 3 | | Course No. H1033RS | |
|---|-------------------------|--------------------|----------|
| Required: NCAA | Prerequisite: English 2 | Semester | 1 credit |
| <p>With an emphasis in a survey of American literature and preparation for the SOL tests in Reading/Literature and Research and Writing, students will focus on composing and delivering an argument. Additionally, students will review grammar, composition, syntax, and vocabulary. Using the writing process, students will write creatively and analytically, and compose a documented research paper.</p> | | | |

| AP English Language and Composition | | Course No. H1051BS | |
|---|--|---------------------------|-----------------|
| Elective: DE; NCAA | Prerequisite: English 2 and Grade of B or higher in previous English course and English teacher recommendation. | Semester | 1 credit |
| <p>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-20th 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.</p> | | | |

| English 4 | | Course No. H1044RS | |
|--|---|---------------------------|-----------------|
| Required | Prerequisite: English 3 or AP English Language and Composition | Semester | 1 credit |
| <p>The main emphasis of the course is a survey of British literature. Students will learn oral communication skills needed in the work place and college. Students will learn oral communication skills needed in the workplace such as impromptu speaking, group problem-solving strategies and formal presentations. Students will use the writing process to create essays, resumes and evaluations. The course will culminate in a Capstone Presentation which will synthesize the reading, writing and thinking around an issue of importance to individual students.</p> | | | |

| AP English Literature and Composition | | Course No. H1052BS | |
|--|---|---------------------------|-----------------|
| Required: DE; NCAA | Prerequisite: English 3 or AP English Language and Composition and Grade of B or higher in previous English course and English teacher recommendation. | Semester | 1 credit |
| <p>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, and the study and practice of writing about literary works; they will continue writing essays in exposition and argument. Students will be accountable for a minimum of three literary works for summer reading.</p> | | | |

| Improvisation | | Course No. H1060ES | |
|---|--|---------------------------|-----------------|
| Elective: Grades 10-12 | Prerequisite: Successful Audition | Semester | 1 credit |
| <p>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.</p> | | | |

| Theatre I: Speech and Drama | | Course No. H1070ES | |
|--|--|---------------------------|-----------------|
| Elective: Grades 9-12 | Prerequisite: Successful Audition | Semester | 1 credit |
| <p>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.</p> | | | |

| Forensics: Speech Events | | | Course No. H1081ES |
|---|---|-----------------|---------------------------|
| Elective: Grades 9-12 | Prerequisite: English 2 or Audition for 9th grade | Semester | 1 credit |
| <p>This class is for students who have completed English 2, are creative and articulate, and are interested in competing as a part of the John Handley Forensics Team. Students will be introduced to competition events approved by the Shenandoah Valley Forensics League, the Virginia High School League, and the National Speech and Debate League. For persuasive speeches used in original oratory, class time will involve researching topics using MLA rules and format and learning effective speech delivery techniques. For those students interested in interpretation, the course will focus on selecting, cutting, editing and delivering interpretations of literary works in dramatic, humorous, poetry, prose and duo events. Impromptu speaking will also be a focus of the class. Assessment of progress may involve both writing- and performance-based methods. In addition to competing with the team, students will be expected to participate in one other event such as Poetry Out Loud, working as a judge at the middle school forensics event, or speaking at a school assembly. The forensics team is an award winning team; thus students in this class are expected to be dedicated and self-motivated.</p> | | | |

| Forensics: Debate Events | | | Course No. H1082ES |
|--|---------------------------|-----------------|---------------------------|
| Elective: Grades 10-12 | Prerequisite: none | Semester | 1 credit |
| <p>This class is for students who are articulate, argumentative and willing to put forth the effort needed to be competitive in debate events in the Shenandoah Valley Forensics League, the Virginia High School League, and the National Speech and Debate League. Class time is spent working towards being a proficient debater through researching topics, writing, editing, and delivering speeches; therefore, progress toward objectives will be measured with both writing and performance-based methods. Instruction on the following events may be included in this class: public forum debate, Lincoln Douglas Debate, Student Congress, Classic Policy Debate and Extemporaneous Speaking. In order to be a part of the John Handley debate team, students should be aware that dedication and self-motivation are essential.</p> | | | |

| Creative Writing & Miscellanea | | | Course No. H1090ES |
|--|---------------------------|-----------------|---------------------------|
| Elective: Grades 10-12 | Prerequisite: none | Semester | 1 credit |
| <p>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 students 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.</p> | | | |

ENGLISH LEARNERS

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

| ESOL Language I | | Course No. H1003LY | |
|---|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Year-Long | 2 credit |
| This course is designed to provide instruction for English Learners with an overall proficiency level 1 or 2, based on the WIDA ACCESS test or Screener (WAPT). Students will develop vocabulary, both social/instructional and academic language, reading comprehension skills and proves of writing. The goals of this course will be the development of survivable academic language in English listening, speaking, reading, and writing for success in high school coursework. | | | |

| ESOL Language II | | Course No. H1004LY | |
|---|---------------------------|---------------------------|------------------|
| Elective | Prerequisite: none | Year-Long | 2 credits |
| This course will provide a transition to English I for English language learners. The pace, writing, and reading skills will be adjusted to meet the needs of the learners, building up their skills to move into higher courses. Emphasis will be on skills in oral communication, writing, and the genres of literature. Paraphrasing, summarizing, giving and following directions, relaying opinions and responding to books will be stressed. Writing includes note-taking, completing standardized forms, understanding instructions, grammar, mechanics and usage as they relate to paragraphs, letters, essays, and longer compositions. Students will analyze a variety of media and study a variety of texts including fiction, non-fiction, drama, and poetry. Students will learn to cite sources and incorporate them in a research product. | | | |

| ESOL Reading Skills, Part I & Part II | | Course No. H1001LS & H1002LS | |
|---|---------------------------|---|----------------------|
| Elective | Prerequisite: none | Semester | 1 credit each |
| This course is designed to provide reading instruction to English Learners who are currently reading below a fifth grade reading level and have scored below a level 3 on the reading domain portion of the WIDA ACCESS test or Screener, (WAPT). The goal is to increase instructional reading levels and comprehension strategies to better enable them for academic success in high school coursework. | | | |

| ESOL Integrated Science | | Course No. H3000LY | |
|--|---------------------------|---------------------------|------------------|
| Elective | Prerequisite: none | Year Long | 2 credits |
| This course is designed to provide some background knowledge in English of Science terms and concepts. In particular instruction will focus on front-loading the vocabulary and initial concepts of Biology since this is the first required course English Learners must successfully complete toward graduation requirements. This course is designed to support English Learners who are an overall level 1 or 2 on the WIDA ACCESS test. | | | |

| Biology for English Learners | | Course No. H3021LY | |
|--|---------------------------|---------------------------|------------------|
| Elective | Prerequisite: none | Year Long | 2 credits |
| <p>This course is designed to cover all required Biology course requirements and material, but paced over a full school year in order to allow English Learners the time it takes to immerse themselves more fully in the vocabulary and concepts required for success in this course. This course is designed to support English Learners who are at an overall level 2 or 3 on the WIDA ACCESS test.</p> | | | |

| ESOL Integrated Social Studies (History) | | Course No. H4000LY | |
|--|---------------------------|---------------------------|------------------|
| Elective | Prerequisite: none | Year Long | 2 credits |
| <p>This course is designed to provide background knowledge and support in the history content areas. Vocabulary and language used in the study of American history will be front-loaded and supported throughout this course. Content will cover an overview of American history from prehistory through the present time. Vocabulary for English Learners who are English proficiency levels 1 or 2 will be supported in this class. Opportunities for language and literacy practice using the history content of the course will be woven throughout the course. This course is designed to support English Learners who are an overall level 1 or 2 on the WIDA ACCESS test.</p> | | | |

| ESOL Algebra Readiness 1-A & 1-B | | Course No. H2001LS & H2002LS | |
|--|---------------------------|---|-------------------------------|
| Elective | Prerequisite: none | Two sequential semesters | 1 credit each semester |
| <p>ESOL Algebra readiness is for English Learners who are two or more years behind in math. Basic math skills will be reviewed and vocabulary will be practiced throughout the school year. This course provides specific strategies for introducing and developing language in mathematics class and to build skills essential to comprehending higher level math classes. Concrete, collaborative learning experiences using technology are emphasized throughout the course. Placement will be based upon student request, teacher recommendations, and previous math/WIDA assessments.</p> | | | |

WORLD LANGUAGES

The World 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 world language teacher before registering for the next level of that language.

| German I | | Course No. H7031ES | |
|---|---------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: none | Semester | 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. H7032ES | |
|--|-------------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: German I | Semester | 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. H7033ES | |
|--|--------------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: German II | Semester | 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. H7034DS | |
|--|---------------------------------|---------------------------|-----------------|
| Elective: DE; NCAA | Prerequisite: German III | Semester | 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. | | | |

| AP German Language and Culture | | Course No. H7035AS | |
|--|--------------------------------|---------------------------|-----------------|
| Elective: DE; NCAA | Prerequisite: German IV | Semester | 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. | | | |

| French I | | Course No. H7021ES | |
|---|---------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: none | Semester | 1 credit |
| <p>Level I French focuses on the development of students' communicative competence in the foreign language and their understanding of the culture(s) of the people who speak the language. Communicative competence is divided into three strands: speaking and writing as an interactive process, reading and listening as a receptive process, and speaking and writing in a presentational context. In a Level I class, the students learn to communicate in real-life contexts about topics that are meaningful to them. In order to develop the three areas of communicative competence, students are encouraged to use the foreign language as much as possible in all areas of study. Rather than isolating grammar in a separate strand, it is integrated into instruction according to the vocabulary and structures needed in the various situations in which students are required to function. Through the language learning process, students develop an understanding of how their own language is structured and how their own culture has unique aspects. This course is also offered at the middle school.</p> | | | |

| French II | | Course No. H7022ES | |
|---|-------------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: French I | Semester | 1 credit |
| <p>Level II French emphasizes intermediate communicative language skills in speaking, reading and writing. As in French I, communicative competence is divided into three strands: speaking and writing as an interactive process, reading and listening as a receptive process, and speaking and writing in a presentational context. Students will have the opportunity to learn more about the French family-how they live, work and play. Students will become acquainted with the customs, problems, and cultures of modern French-speaking peoples. This course is also offered at the middle school.</p> | | | |

| French III | | Course No. H7023ES | |
|---|--------------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: French II | Semester | 1 credit |
| <p>French III emphasizes advanced skills in language development. Communication in French will be stressed. Works of great French authors and French history will be read and discussed in the target language. Compositions are required. Grammar will continue to be studied. Students will be introduced to various types of French films.</p> | | | |

| French IV | | Course No. H7024ES | |
|--|---------------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: French III | Semester | 1 credit |
| <p>Conducted almost exclusively in French, this course will continue the student's introduction to basic elements of the French language and to some cultural background of many of the countries in which it is spoken. The course's primary purpose is to enable the student to command the language enough to converse easily and correctly in common, everyday situations, to express one's thoughts, 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 equip you with mutually reinforcing ways of learning French so that your skills will be well rounded.</p> | | | |

| | | | |
|---------------------------------------|--|--|---------------------------|
| AP French Language and Culture | | | Course No. H7025AS |
|---------------------------------------|--|--|---------------------------|

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|-----------------------|--------------------------------|-----------------|-----------------|
| Elective: NCAA | Prerequisite: French IV | Semester | 1 credit |
|-----------------------|--------------------------------|-----------------|-----------------|

The AP French Language and Culture course takes a holistic approach to language proficiency and recognizes the complex interrelatedness of comprehension and comprehensibility, vocabulary usage, language control, communication strategies and cultural awareness. Students should learn language structures in context and use them to convey meaning. In standards-based world language classrooms, the instructional focus is on function and not the examination of irregularity and complex grammatical paradigms about the target language. Language structures should be addressed inasmuch as they serve the communicative task and not as an end goal. The AP French Language and Culture course strives to promote both fluency and accuracy in language use and not to overemphasize grammatical accuracy at the expense of communication. In order to best facilitate the study of language and culture, the course is taught in the target language. The AP French Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products, both tangible (e.g., tools, books, music) and intangible (e.g., laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes and assumptions that underlie both practices and products).

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|----------------|--|--|---------------------------|
| Latin I | | | Course No. H7041ES |
|----------------|--|--|---------------------------|

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|-----------------------|---------------------------|-----------------|-----------------|
| Elective: NCAA | Prerequisite: none | Semester | 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.

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|-----------------|--|--|---------------------------|
| Latin II | | | Course No. H7042ES |
|-----------------|--|--|---------------------------|

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|-----------------------|------------------------------|-----------------|-----------------|
| Elective: NCAA | Prerequisite: Latin I | Semester | 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. H7043ES |
|------------------|--|--|---------------------------|

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|-----------------------|-------------------------------|-----------------|-----------------|
| Elective: NCAA | Prerequisite: Latin II | Semester | 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 of Catullus and Ovid. 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.

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|-----------------|--|--|---------------------------|
| AP Latin | | | Course No. H7044AS |
|-----------------|--|--|---------------------------|

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|-----------------------|--------------------------------|-----------------|-----------------|
| Elective: NCAA | Prerequisite: Latin III | Semester | 1 credit |
|-----------------------|--------------------------------|-----------------|-----------------|

Vergil and his works are viewed in the perspective of the Augustan Age and its impact on world history and literature while reading his epic, the Aeneid. Additionally, students will read selections of Julius Caesar's Gallic Wars. AP Latin places a heavy emphasis on literal translation, reading comprehension, contextualization and text analysis. Students in the course are fully prepared to take the CEEB Advanced Placement Latin exam in May.

| Spanish I | | Course No. H7011ES | |
|--|---------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: none | Semester | 1 credit |
| <p>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. This course is also offered at the middle school.</p> | | | |

| Spanish II | | Course No. H7012ES | |
|--|--------------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: Spanish I | Semester | 1 credit |
| <p>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. This course is also offered at the middle school.</p> | | | |

| Spanish III | | Course No. H7013ES | |
|--|---|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: Spanish II or Spanish for Fluent Speakers II | Semester | 1 credit |
| <p>The student refines grammar skills and expands vocabulary structures in order to communicate on an increasingly advanced level in the written and oral forms. The use of various authentic materials continues to prepare the student to use Spanish in today's world. Further cultural connections are made as students encounter more advanced readings, literature, videos, and recordings. Most of the class is conducted in Spanish.</p> | | | |

| Spanish IV | | Course No. H7014ES | |
|--|----------------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: Spanish III | Semester | 1 credit |
| <p>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.</p> | | | |

| AP Spanish Language and Culture | | Course No. H7015AS | |
|---|---------------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: Spanish IV | Semester | 1 credit |
| <p>From the preceding courses, the student has developed a basic working knowledge of the Spanish language. The AP language study focuses on interpersonal spoken and written communication; interpretive audio, visual, audiovisual, written and print communication, and presentational spoken and written communication. The goal is increased fluency and depth or expression. The demands of the course are equivalent to those of an intermediate level college course. The course also prepares students with the strategies and skills necessary for success on the AP Spanish Language and Culture exam.</p> | | | |

| Spanish for Fluent Speakers I | | Course No. H7001LS | |
|---|---|---------------------------|-----------------|
| Elective | Prerequisite: Ability to understand and communicate verbally, and to write simple basic sentences in Spanish. Placement test and teacher recommendation. | Semester | 1 credit |
| Beginning course designed for students who can speak and understand Spanish, and who wish to improve their reading, writing, speaking, and vocabulary skills. Class conducted in Spanish. | | | |

| Spanish for Fluent Speakers 2 | | Course No. H7002LS | |
|---|---|---------------------------|-----------------|
| Elective | Prerequisite: Completion of Spanish for Fluent Speakers 1 or department recommendation | Semester | 1 credit |
| Further instruction in reading, writing, speaking, and listening: vocabulary building and preparation in basic principles of composition and grammar, spelling, sentence structure, punctuation, accents, and paragraph organization. | | | |

HEALTH AND MEDICAL SCIENCES

| Introduction To Health & Medical Sciences | | | Course No. H6170ES |
|---|--|-----------------|---------------------------|
| Elective: Grade 9-12 | Prerequisite: Algebra I and Biology | Semester | 1 credit |
| <p>This course introduces the student to a variety of health care careers and develops basic skills required in all health and medical sciences. It is designed to help students understand the key elements of the U.S. health care system and to learn basic health care terminology, anatomy and physiology for each body system, pathologies, diagnostic and clinical procedures, therapeutic interventions, and the fundamentals of traumatic and medical emergency care. Throughout the course, instruction emphasizes safety, cleanliness, asepsis, professionalism, accountability, and efficiency within the health care environment. Students also begin gaining job-seeking skills for entry into the health and medical sciences field. In addition, instruction may include the basics of medical laboratory procedures, pharmacology fundamentals, biotechnology concepts, and communication skills essential for providing quality patient care. CPR instruction and certification is also included.</p> | | | |

| Medical Laboratory Technology I | | | Course No. H6181DY |
|---|---|-----------------|---------------------------|
| Elective: Grade 10-12, DE | Prerequisite: Intro to Health Sciences preferred | Semester | 1 credit |
| <p>In Medical Laboratory Technology I, students gain foundational knowledge and skills appropriate for a variety of medical-related career paths in the field of medical technology. They are introduced to diagnostic and therapeutic laboratory procedures that support medical research and practice, and investigate safety, quality assurance, and ethical concerns associated with the field of medical technology.</p> | | | |

| Medical Laboratory Technology II | | | Course No. H6182DY |
|--|--|-----------------|---------------------------|
| Elective: Grade 10-12, DE | Prerequisite: Medical Laboratory Technology I | Semester | 1 credit |
| <p>Students will build on the foundational knowledge and skills obtained in Medical Laboratory Technology I. The students will use the basic principles necessary to perform competently in the areas of Hematology, Clinical Chemistry, Clinical Microbiology, Immunohematology, and Immunology/Serology. Competency includes performing the technique correctly, understanding the theory of the procedures, and interpreting the results. Weekly laboratory activities will stress actual student performance of the routine tests normally seen in the clinical setting.</p> | | | |

| Nurse Aide I | | | Course No. H6191EY |
|--|--|--------------------------------|---------------------------|
| Elective: Grade 11-12 | Prerequisite: Intro to Health Sciences preferred * See Notation | Semester (2 blocks) | 2 credits |
| <p>Nurse Aide I offered as an occupational preparation course emphasizes the study of nursing occupations as related to the health care system. Students study normal growth and development, simple body structure and function, and medical terminology and are introduced to microbes and disease. They receive elementary skill training in patient-nursing assistant relationships; taking and recording of vital signs; cardiopulmonary resuscitation; and bathing, feeding, dressing, and transporting of patients in hospitals and nursing homes. Limited on-the-job instruction in nursing homes and hospitals is part of the course. This course can be used as an introduction to practical nursing or to prepare the student for Nurse Aide II so that all competencies for a certified nursing assistant are met.</p> | | | |

| Nurse Aide II | | Course No. H6192EY | |
|---|--|--------------------------------------|------------------|
| Elective: Grade 11-12 | Prerequisite: Nurse Aide I * See Notation | Semester (2 blocks) | 2 credits |
| <p>Nurse Aide II is an occupational preparation course, emphasizing advanced skill training in areas such as catheter care, range of motion, bowel and bladder training, care of the dying, selected procedures for maternal and infant care, and admission and discharge procedures. Students learn diseases and body systems as related to advanced clinical care of the acute medical-surgical patient, the chronically ill, and the elderly. On-the-job instruction in a licensed nursing home is part of the course. Upon completion of the nurse aide program, the student is eligible to take the nurse aide certification exam that leads to employment as a certified nurse aide in hospitals and nursing homes. Upon completion of the course, students will sit for the Nurse Aide Exam given by the Board of Nursing.</p> | | | |

| Emergency Medical Technician I | | Course No. H6150ES | |
|---|--|--------------------------------------|------------------|
| Elective: Grade 11-12 | Prerequisite: Intro to Health Sciences * See Notation | Semester (2 blocks) | 2 credits |
| <p>The tasks for this course represent the National Emergency Medical Services Educational Standards. Students explore and apply the fundamentals of emergency medical services, anatomy, physiology, and medical terminology while demonstrating skills in assessing and managing patient care, including assessing the scene and understanding shock, resuscitation, and trauma. Supervised field experience outside of school hours is required.</p> <p>Note: Students must be at least 16 years old by the first day of the course offering.</p> | | | |

* Students in the Nurse Aide, EMT and Medical Laboratory Technologies courses will be required to have updated immunization records and are subject to a criminal background check and drug testing. Students must have a clean criminal background check and must provide a non-positive drug test.

KINESIOLOGY & HEALTH

Kinesiology / Health

Course No. H5010RS

Required

Prerequisite: none

Semester

1 credit

In Kinesiology students will complete the transition from modified versions of movement forms to more complex applications across all types of physical activities. They will demonstrate and apply key movement and fitness principles and concepts for all activities in which they will demonstrate competence in the ability to use basic skills, strategies, and tactics. Students will demonstrate more specialized knowledge in identifying and applying key movement concepts and principles. They assess their skill performance and develop a personal physical activity program aimed at improving it. They apply their understanding of personal fitness to lifelong participation in physical activity. Students demonstrate independence of others in making choices, respect all others, avoid conflict but are able to resolve it appropriately, and use elements of fair play and ethical behavior in physical activity settings. Students demonstrate the ability to plan for and improve components of fitness and achieve and maintain a health-enhancing level of personal fitness. They develop the ability to understand and anticipate how physical activity interests and abilities change across a lifetime. Students demonstrate competency in at least three lifelong physical activities and plan, implement, self-assess, and modify a personal fitness plan. Students are prepared to lead a physically active lifestyle. Part of the course focuses on classroom instruction in fitness, nutrition, the functioning body, family relationships, disease prevention and control, and substance abuse prevention.

New Virginia Licensing Regulation – beginning with first-time ninth grade students in the 2016-2017 school year, requires that recipients of the standard and advanced diplomas must receive and WPS requires that students pass training in emergency first aid, CPR, and the use of AEDs.

Health 10 / Drivers Education

Course No. H5020RS

Required

Prerequisite: none

Semester

1 credit

Students will participate in classroom instruction and in individual and team activities designed to develop attitudes, knowledge, and skills necessary to maintain personal fitness for a lifetime. Part of the course focuses on classroom instruction in fitness, nutrition, the functioning body, family relationships, disease prevention and control, and substance abuse prevention. Students will also spend time in the gym applying fitness concepts learned in previous lessons. Students will demonstrate and apply key movement and fitness principles and concepts for all activities in which they will demonstrate competence in the ability to use basic skills, strategies, and tactics. Students continue to participate in classroom instruction and in individual and team activities designed to develop attitudes, knowledge, and skills necessary to maintain personal fitness for a lifetime. Fifty percent of the course focuses on classroom instruction in family life education, first aid including CPR, and classroom driver education. Classroom driver education consists of a minimum of 36 periods of structured learning experiences aimed at developing safe and efficient drivers. Completion of driver education through private instruction does not exempt the student from completing all course objectives. The curriculum for Pre-IBDP physical education will incorporate the MYP five Areas of Interaction, strategies and criteria.

Advanced Kinesiology*

*Prerequisite for the Advanced Kinesiology course: Successful completion of Health 9/Kinesiology with a “C” average or better, or with a recommendation from a Kinesiology teacher. Students who choose to enroll in a second year of an Advanced Kinesiology course must have completed the first year of General or Advanced Kinesiology with a “B” or better.

| Advanced PE/Team Sports | | Course No. H5031ES | |
|---|----------------------------------|---------------------------|-----------------|
| Elective; Grades 10-12 This course may be repeated for additional credits with no more than one per semester. | Prerequisite: * see above | Semester | 1 credit |
| <p>This Advanced Kinesiology course places an emphasis on students honing their team sports skills in a less competitive atmosphere than our competitive team sports class. Students will review and focus on skills, rules, and strategies needed to play games successfully. Through tournament play the students will demonstrate their understanding of the rules and strategies of selected team sports and apply them appropriately. The student will also demonstrate mastery of movement skills and patterns that apply to the selected team sports. The student will participate regularly in health-enhancing physical activities that contribute to personal enjoyment and the attainment and maintenance of personal physical activity goals. The student will accept responsibility for taking a leadership role as well as demonstrate the ability to follow in order to accomplish group goals by refereeing games and running tournaments. Activities students will take part in: Basketball, Volleyball, Hockey, Angle Ball, Lacrosse, Team Handball, Ultimate Frisbee, Soccer, Flag Football, and Field Hockey.</p> | | | |

| Advanced PE/Weight Training | | Course No. H5041ES | |
|---|-----------------------------------|---------------------------|-----------------|
| Elective: Grades 10-12 | Prerequisite: * see above. | Semester | 1 credit |
| <p>This course places emphasis on weight training and conditioning. The student will understand how and why weight training and conditioning benefits the student’s ability to perform athletically. The student will learn to assess one’s own fitness needs and how to attain personal fitness for a lifetime. Additional emphasis is placed on the five health-related components of fitness including cardiovascular fitness, muscular strength and endurance, flexibility, and body fat control. Individual student fitness levels will be assessed the students will formulate personal goals and develop individual fitness programs. Instruction includes emphasis on health risk factors related to lifestyles and how nutrition affects training.</p> | | | |

MATHEMATICS

| Algebra I | | Course No. H2010RS | |
|--|---------------------------|---------------------------------|--------------------------------|
| Required: NCAA | Prerequisite: none | Semester / Year Long | 1 credit/ 2 credits |
| <p>Year-long course: This 2-part 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. This course is offered for 1 elective credit and 1 mathematics credit. Students with an IEP with credit accommodations and EL students may enroll in Algebra I Part 1 and Algebra I Part 2 and receive 2 mathematics credits (0330FI/0330SI)</p> <p>Semester course: This semester-long option for Algebra I is only recommended for students who earned an A or B in Math 8 and have earned a score of 500 or better on the Math 8 end-of-course SOL test. The course will cover all of the same content as the year-long Algebra I course in a semester format and will be offered for 1 mathematics credit. Placement into semester or year-long classes will be based on student requests, teacher recommendations and previous mathematics achievement data. Students will be considered as individuals with best placement the goal for every student. This course is also offered at the middle school.</p> | | | |

| Geometry | | Course No. H2020RS | |
|--|--------------------------------|---------------------------------|--------------------------------|
| Required: NCAA | Prerequisite: Algebra I | Semester / Year Long | 1 credit/ 2 credits |
| <p>Year-long course: 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. Technology will enhance student learning. The year-long Geometry course is offered for 1 elective credit and 1 mathematics credit.</p> <p>Semester course: This semester-long option for Geometry is only recommended for students who earned an A or B in Algebra, and have earned a score of 500 or better on the Algebra I end-of-course SOL test. The course will include all of the topics in the year-long Geometry course in a semester format and will be offered for 1 mathematics credit. Placement into semester or year-long classes will be based on student requests, teacher recommendations and previous mathematics achievement data. Students will be considered as individuals with best placement the goal for every student. This course is also offered at the middle school.</p> | | | |

| Algebra, Functions and Data Analysis | | Course No. H2010ES | |
|---|---|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: Algebra I and Geometry | Semester | 1 credit |
| <p>This course is designed for students who have successfully completed the standards for Algebra I and Geometry. 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.</p> | | | |

| Algebra II and Trigonometry | | Course No. H2030RS | |
|---|---|-----------------------------|-----------------|
| Elective: NCAA | Prerequisite: Algebra I and Geometry | Semester / Year Long | 1 credit |
| <p>Year-long course: 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. Quadratic, 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. The year-long Algebra II and Trigonometry course is offered for 1 elective credit and 1 mathematics credit.</p> <p>Semester course: 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 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. This course is designed specifically for students who have a special interest and aptitude for upper-level mathematics. The semester course is offered for 1 mathematics credit.</p> | | | |

| Pre-calculus | | Course No. H2044ES | |
|--|---|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: Algebra II and Trig. | Semester | 1 credit |
| <p>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.</p> | | | |

| Probability and Statistics | | Course No. H2074ES | |
|--|---|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: Algebra II and Trig. | Semester | 1 credit |
| <p>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.</p> | | | |

| Calculus A & B | | Course No. H2055DQ & H2056DQ | |
|---|-----------------------------------|---|-----------------|
| Elective: DE; NCAA | Prerequisite: Pre-Calculus | Semester | 1 credit |
| <p>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.</p> | | | |

| AP Statistics A & B | | Course No. H2071BQ & H2072BQ | |
|--|---|---|-----------------|
| Elective: DE; NCAA | Prerequisite: Pre-Calculus or Probability and Statistics | Semester | 1 credit |
| <p>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.</p> | | | |

AP Calculus AB Part 1 & AP Calculus AB Part 2**Course No H2051BS & H2052BS**

| | | | |
|---------------------------|-----------------------------------|------------------|------------------|
| Elective: DE; NCAA | Prerequisite: Pre-Calculus | Year Long | 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. H2053BS**

| | | | |
|----------------------------|--|-----------------|-----------------|
| Elective : DE; NCAA | Prerequisite: Calculus AB Recommendation: Score of 3 or higher on the AP Calculus AB Test | Semester | 1 credit |
|----------------------------|--|-----------------|-----------------|

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 be studied. Additional topics will include geometric series, alternating series with error bound, and convergence tests.

Computer Math**Course No. H2090ES**

| | | | |
|-----------------|--------------------------------|-----------------|-----------------|
| Elective | Prerequisite: Algebra I | Semester | 1 credit |
|-----------------|--------------------------------|-----------------|-----------------|

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.

Computer Programming**Course No. H6211ES**

| | | | |
|-------------------------------|---|-----------------|-----------------|
| Elective: Grades 10-12 | Prerequisite: Computer Mathematics and Instructor Approval | Semester | 1 credit |
|-------------------------------|---|-----------------|-----------------|

Platform-independence of Java has allowed programmers to create applications for the masses making it one of the most utilized of programming languages. In this course students 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, students 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.

Advanced Computer Programming

Course No. H6212VS

Elective: Grades 11-12

Prerequisite: Programming

Semester

1 credit

Building on their foundation of programming skills, Advanced Programming students use object-oriented programming to develop database applications, interactive multimedia applications including game applications, mobile applications, and Web applications. Students continue to develop their employability skills as they research pathways for continuing education and careers in the information technology industry and engage in various career-building activities.

MUSIC

| Concert Band | | Course No. H8010ES | |
|---|---|---------------------------|------------------|
| Elective | Prerequisite: Middle School Band Experience or Successful Audition | Semester | 1 credits |
| <p>Students who take this course will learn and practice the fundamentals of music in a concert band setting. Concert band instrumentation includes, flute, clarinet, saxophone, oboe, bassoon, horn, trumpet, trombone, baritone, tuba and concert percussion. Special attention will be given to tone production, tuning, melody, harmony, rhythm and form as we listen to, practice and create music in an ensemble setting. The concert band will perform a fall and spring concert in the Patsy Cline Auditorium and may perform at the district concert band festival and at community events. Students will practice and perform music at beginning to intermediate levels. This course is only available in the fall. *See Note</p> | | | |

| Symphonic Band | | Course No. H8020ES | |
|--|--|---------------------------|------------------|
| Elective | Prerequisite: Concert Band or Successful Audition | Semester | 1 credits |
| <p>Students who take this course will learn and practice the fundamentals of music in a concert band setting. Concert band instrumentation includes, flute, clarinet, saxophone, oboe, bassoon, horn, trumpet, trombone, baritone, tuba and concert percussion. Special attention will be given to tone production, tuning, melody, harmony, rhythm and form as we listen to, practice and create music in an ensemble setting. The symphonic band will perform a fall and spring concert in the Patsy Cline Auditorium and will perform at the district concert band festival and at community events. Students will practice and perform music at intermediate to advanced levels. *See Note</p> | | | |

* Note: Students that register for this course are asked to consider being a member of the John Handley Marching Judges but are not required to march in order to take the course. The marching band practices for two weeks in the summer and on Tuesday and Thursday after school hours in the fall. The marching band performs at football games, the Winchester Christmas parade and in both Apple Blossom parades. The marching band also participates in an annual spring trip. We have traveled to Florida, Chicago and Williamsburg Va.

| Marching Band (John Handley Marching Judges) | | Course No. H8000ES | |
|--|---|---------------------------|-----------------|
| Elective | Prerequisite: DMMS band or Successful Audition | Semester | 1 credit |
| <p>Students who take this course will learn and practice the fundamentals of music in a marching band setting. Marching band instrumentation includes: flute, clarinet, saxophone, mellophone, trumpet, trombone, baritone, tuba and marching percussion. Special attention will be given to tone production, tuning, melody, harmony, rhythm and form as we listen to, practice and create music in an outdoor setting. Marching band also includes moderate to intense physical training as we learn and drill the fundamentals of marching technique. The marching band performs at football games, marching competitions, the Winchester Christmas parade and in both Apple Blossom parades.</p> | | | |

| Beginning Guitar | | Course No. H8031ES | |
|--|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| <p>Beginning guitar is a course for guitarists with little or no experience. Students will learn open chords, power chords, movable chords, melodic playing, accompaniment techniques, and a variety of playing techniques. Students will learn music fundamentals, music theory, read standard music notation and some tablature. Participation in concerts is mandatory. Students must own either a nylon or steel string acoustic guitar.</p> | | | |

| Intermediate Guitar | | | Course No. H8032ES |
|--|--|-----------------|---------------------------|
| Elective | Prerequisite: Beginning Guitar or Successful Audition | Semester | 1 credit |
| <p>Students enrolled in this second year of study will continue to improve their understanding and ability to read and play different staff notations, tablature, chord grids, and chord symbols. Students will also learn to utilize various right hand styles such as flat picking, pick-strumming, finger picking and finger strumming. A variety of music styles will be used including classical, jazz, rock and more. Students should own a full size nylon or steel string guitar. All after school rehearsals and performances are required.</p> | | | |

| Treble Ensemble | | | Course No. H8040EY |
|--|--|------------------|---------------------------|
| Elective: Grades 9-12 | Prerequisite: Successful Audition | Year Long | 2 credits |
| <p>This choir is composed of students with treble voices who have experience in choral music or who have the abilities to perform in an ensemble at a high level of proficiency. Students will be expected to dance as part of the curriculum. Vocal development, sight-reading and music theory are stressed. Performance in all concerts presented by this ensemble is required.</p> | | | |

| Concert Choir | | | Course No. H8050EY |
|--|--|------------------|---------------------------|
| Elective: Grades 9-12 | Prerequisite: Successful Audition | Year Long | 2 credits |
| <p>This ensemble is a select large ensemble of advanced singers. The ensemble is a performance-oriented group designed to offer the talented singer the opportunity to perform challenging music. The students will perform throughout the community and participate in district and state choruses, festivals and competitions. Students will be expected to dance as part of the curriculum. Vocal development, sight-reading and music theory are stressed. Performance in all concerts presented by this ensemble is required.</p> | | | |

| Hilltops Chamber Choir | | | Course No. H8060EY |
|--|--|------------------|---------------------------|
| Elective: Grades 9-12 | Prerequisite: Successful Audition, and one year experience in Treble, Ensemble or Concert Choir | Year Long | 2 credits |
| <p>The Hilltops Chamber Choir is a select small ensemble of advanced singers. The ensemble is a performance-oriented group designed to offer the talented singer the opportunity to perform challenging music. Music will be performed from a variety of genres with special emphasis on the correct performance technique for each period. The students will perform throughout the community and participate in district and state choruses, festivals and competitions. Students will be expected to dance as part of the curriculum. Vocal development, sight-reading and music theory are stressed. Performance in all concerts presented by this ensemble is required.</p> | | | |

SCIENCE

| Anatomy & Physiology | | | Course No. H3070DS | |
|---|---|-----------------|---------------------------|--|
| Grades 10-12; DE | Prerequisite: Biology/Honors Biology | Semester | 1 credits | |
| <p>Anatomy & Physiology (A&P) is a rigorous science course that consists of a detailed study of the anatomy of the human body and the functions of its systems. The biochemistry of each system is emphasized. Required laboratory applications include in-depth analysis of the various systems. A&P will cover basic chemical concepts, cellular physiology, as well as the anatomy and physiology of human organs. This course is designed for students who have an interest in entering a health-related field.</p> | | | | |

| Earth Science | | | Course No. H3011ES | |
|--|---------------------------|-----------------|---------------------------|--|
| Elective: NCAA | Prerequisite: none | Semester | 1 credit | |
| <p>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. This course is also offered at the middle school.</p> | | | | |

| Biology | | | Course No. H3021ES | |
|--|---------------------------|-----------------|---------------------------|--|
| Elective: NCAA | Prerequisite: none | Semester | 1 credit | |
| <p>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.</p> | | | | |

| Honors Biology | | | Course No. H3021HS | |
|--|--|-----------------|---------------------------|--|
| Elective: NCAA | Prerequisite: Teacher recommendation and previous science score of B or higher. | Semester | 1 credit | |
| <p>Honors Biology provides students with the fundamental concepts needed to give them a broad background in basic biology. The differences include a more in-depth look at concepts through class discussions, laboratory experiences and projects; more cross-curricular connections; higher-level critical thinking activities; and more individual projects to allow for individualized learning.</p> | | | | |

| Advanced Survey of Environmental Science | | | Course No. H3022VS | |
|--|--|-----------------|---------------------------|--|
| Elective: NCAA | Prerequisite: Biology and a verified science credit | Semester | 1 credit | |
| <p>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.</p> | | | | |

| AP Biology Part 1/AP Biology Part 2 | | Course No. H3021BS & H3022BS | |
|---|--|---|------------------|
| Elective: DE; NCAA | Prerequisite: Biology and Chemistry | Year Long | 2 credits |
| <p>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.</p> | | | |

| Chemistry | | Course No. H3030ES | |
|---|--------------------------------|---------------------------|-----------------|
| Elective : NCAA | Prerequisite: Algebra 1 | Semester | 1 credit |
| <p>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.</p> | | | |

| AP Chemistry Part 1/AP Chemistry Part 2 | | Course No. H3031BS & H3032BS | |
|---|---|---|------------------|
| Elective : DE; NCAA | Prerequisite: Chemistry and enrolled in/completed Pre-calculus | Year Long | 2 credits |
| <p>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.</p> | | | |

| Physics | | Course No. H3040ES | |
|---|---------------------------------|---------------------------|-----------------|
| Elective : NCAA | Prerequisite: Algebra II | Semester | 1 credit |
| <p>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.</p> | | | |

| AP Physics C (Mechanics Only) | | Course No. H3041AS | |
|---|--|---------------------------|-----------------|
| Elective : Grades 11 or 12, NCAA | Co-requisite: Calculus or AP Calculus | Semester | 1 credit |
| <p>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 1st 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. This course is only offered during fall semester.</p> | | | |

| AP Physics C (Electricity and Magnetism) | | | Course No. H3042AS |
|---|--|-----------------|---------------------------|
| Elective : Grades 11 or 12 | Co-requisite: Calculus or AP Calculus | Semester | 1 credit |
| <p>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 2nd 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. This course is only offered during the spring semester.</p> | | | |

| Advanced Survey of Earth Science | | | Course No. H3012VS |
|--|---|-----------------|---------------------------|
| Elective | Prerequisite: Earth Science and/or Chemistry | Semester | 1 credit |
| <p>The Advanced Survey of Earth Science is a rigorous study of Earth and environmental sciences. The course is structured to examine the processes that affect the Earth's surface and interior. Students will view the Earth as a dynamic planet, with continual exchanges between energy and material among the planet's interior and exterior, oceans, atmosphere and life. There is an integrated application of the scientific method to the Earth sciences including geologic resources, processes and materials, surface and groundwater, climate, environmental complications and related topics. The course will have a rigorous schedule, which provides opportunity to continue studying topics in greater depth and to explore new topics or problems in the Earth Sciences.</p> | | | |

| AP Environmental Science | | | Course No. H3060AS |
|--|--|-----------------|---------------------------|
| Elective: NCAA | Prerequisite: Biology and Chemistry | Semester | 1 credit |
| <p>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.</p> | | | |

| Astronomy | | | Course No. H3070ES |
|---|---|-----------------|---------------------------|
| Elective | Prerequisite: Chemistry and/or Algebra II Trigonometry | Semester | 1 credit |
| <p>This course provides a quantitative introduction to the science of astronomy. Course themes are chosen from a variety of astronomical observations and models, the main topics of the course are:</p> <ul style="list-style-type: none"> • Exploring the sky including origins of modern astronomy, gravity, light, and telescopes; • Solar system including origin of solar system, planets, moons, asteroids, meteorites, and comets; • Stars including stellar evolution, death of stars, interstellar medium, neutron stars, and black holes; • Universe including galaxies, supermassive black holes, quasars, dark matter; • Cosmology including the expanse of the universe, Big Bang Theory, dark energy, and the future of the universe. | | | |

SOCIAL STUDIES

| World History and Geography 1 | | Course No. H4011ES | |
|---|---------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: none | Semester | 1 credit |
| <p>This survey course is designed to introduce students to the origin of Western and non-Western Civilizations from prehistory through approximately 1550 CE. Students will be introduced to concepts and techniques employed by historians, archaeologists, and other social scientists. Topics covered include the Origins of Man and Civilization, the Classical World of Greece and Rome, the Post-Classical World, and Regional Interactions in the late Medieval and Early Modern World. Much time will be devoted to the origins, development, and spread of major religions including Hinduism, Buddhism, Judaism, Christianity, and Islam. Stressed throughout the course are such critical thinking skills as analysis and interpretation. Upon successful completion of the course and SOL-EOC Exam, students will receive one verified credit for World History and Geography I. First time 9th graders may substitute a locally developed performance assessment in place of the SOL.</p> | | | |

| Honors World History and Geography 1 | | Course No. H4011HS | |
|---|---------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: none | Semester | 1 credit |
| <p>This survey course is designed to introduce students to the origins of Western and Non-Western Civilizations through 1550 CE. Students will explore more deeply the concepts and techniques employed by historians with special emphasis on historical inquiry. Though an SOL Course, this course will also align closely with the AP World History curriculum and is meant to offer students an opportunity to explore many of the themes and topics that will be discussed in more depth in AP World History. Topics covered include the Origins of Man and Civilization, the Classical World of Greece and Rome, the Post-Classical World, and Regional Interactions in the late Medieval and Early Modern World. Much time will be devoted to the origins, development, and spread of major religions including Hinduism, Buddhism, Judaism, Christianity, and Islam. Stressed throughout the course are such critical thinking skills as analysis and interpretation. This course is a writing, reading, and research intensive course. Although not a prerequisite, this course is highly recommended for students wishing to take AP World History in the future, as well as for motivated students who wish to more deeply explore the ancient, classical, and medieval worlds. Upon successful completion of the course and SOL-EOC Exam, students will receive one verified credit for World History and Geography I. First time 9th graders may substitute a locally developed performance assessment in place of the SOL.</p> | | | |

| World History and Geography 2 | | Course No. H4022ES | |
|---|---------------------------|---------------------------|-----------------|
| Elective: NCAA | Prerequisite: none | Semester | 1 credit |
| <p>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. 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.</p> | | | |

| AP World History Part 1/AP World History Part 2 | | Course No. H4011BQ & H4012BQ | |
|--|--------------------------------------|---|-----------------|
| Elective: DE; NCAA | Prerequisite: World History I | Semester | 1 credit |
| <p>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 will take the SOL test for World History II.</p> | | | |

| Virginia and U.S. History | | Course No. H4030RS | |
|---|--|---------------------------|-----------------|
| Required: NCAA | Prerequisite: World History I or II | Semester | 1 credit |
| <p>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: 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.</p> | | | |

| AP U.S. History | | Course No. H4030BS | |
|---|--|---------------------------|-----------------|
| Elective: DE; NCAA | Prerequisite: World History I or II | Semester | 1 credit |
| <p>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, enlarging the national state, sectionalism, imperialism, prosperity and depression, global war, the Cold War, and contemporary American history.</p> | | | |

| Virginia & U.S. Government 12 | | Course No. H4040RS | |
|--|--|---------------------------|-----------------|
| Required: NCAA | Prerequisite: Virginia & U.S. History | Semester | 1 credit |
| <p>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.</p> | | | |

| Introduction to Psychology | | Course No. H4060ES | |
|---|---------------------------|---------------------------|-----------------|
| Elective: Grades 11-12, NCAA | Prerequisite: none | Semester | 1 credit |
| <p>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.</p> | | | |

| AP Government & Politics | | Course No. H4050BS | |
|---|--|---------------------------|-----------------|
| Elective: DE; NCAA | Prerequisite: VA & U.S. History | Semester | 1 credit |
| <p>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/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.</p> | | | |

JMU PSYCH 101**Course No. H4060DS****Elective: Grades 11-12, JMU DE****Prerequisite: Biology****Semester****1 credit**

This course provides students with an examination of human behaviors and mental processes on the individual and group levels. Topics of study will include bio psychological, cognitive, developmental, and sociocultural behaviors. Successful completion of the course will yield 3 college credits in psychology from James Madison University (student is responsible for JMU tuition and fees). Students cannot take this course without dual enrolling.

SPECIAL EDUCATION

The Special Education Program is designed for students eligible for an Individualized Education Plan.

Foundations of Language Arts I & II

Course No. H1010SS
&H1022SS

Elective: NCAA

Prerequisite: none

Semester

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 general education English classes.

Foundations of Biology

Course No. H3020SS

Elective

Prerequisite: none

Semester

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.

Foundations of Earth Science

Course No. H3010SS

Elective

Prerequisite: none

Semester

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. H2003SS

Elective

Prerequisite: none

Semester

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. H9001SS

Elective

Prerequisite: none

Semester

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 general education classes.

Work Opportunities

Course No. H9110SS

Elective

Prerequisite: none

Semester

.5 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 | | Course No. H2000SS | |
|--|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| <p>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).</p> | | | |

| Foundations of Math I | | Course No. H2001SS | |
|--|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| <p>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.</p> | | | |

| Foundations of Math II | | SC 02999 | Course No. H2002SS |
|--|---------------------------|-----------------|---------------------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| <p>The objective of this course is for students to master basic mathematical operations and procedures. The areas of study are: whole numbers, fractions, per-cents, ratios and proportions, measurement, and math skills for consumers.</p> | | | |

| Foundations of Algebra | | Course No. H2011SS | |
|---|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| <p>The objective of this course is to reinforce and build prior knowledge for 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.</p> | | | |

| Functional Language Arts | | Course No. H1000SS | |
|--|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| <p>This course is designed to provide students with a basic understanding of how print is organized and used to communicate. Through the study of various science and social studies topics, students are expected to improve overall reading skills such as sight word recognition, phonics awareness, and reading comprehension skills. Instruction will include: choral reading, comprehension, phonics, sight words, life skills activities, journal writing, paragraph writing, independent reading, and a variety of other tasks. Students will participate at their ability level and instruction will be differentiated to address various learning needs.</p> | | | |

| Reading I | | Course No. H1101SS | |
|--|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| <p>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.</p> | | | |

| Reading II | | Course No. H1102SS | |
|---|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| 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. | | | |

| Foundations of U.S. History | | Course No. H4030SS | |
|--|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 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. | | | |

| Citizenship | | Course No. H4002SS | |
|---|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 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. | | | |

| World of Work | | Course No. H9080SS | |
|---|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 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 Department of Vocational Services for the purpose of receiving support for their long-range transition goals. | | | |

| Work Center | | Course No. H9100SS | |
|---|---------------------------|---------------------------|------------------|
| Elective | Prerequisite: none | Semester | 2 credits |
| Topics covered in World of Work are reviewed and expanded upon. Students participate in a community work placement, for approximately 1 hour and 15 minutes 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. | | | |

| Workshop | | Course No. H9090SS | |
|---|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| This course is designed to assist students in the development of pre-vocational and vocational skills. Students participate in classroom-based, hands-on activities such as folding and packaging clothing, preparing school newsletters, folding mail items, and various arts and craft activities requiring repetition of skills and movements. Students who are more than three years from their exit year as well as students who may transition to working in a sheltered environment are targeted as Workshop participants. Students and their families are encouraged to develop a relationship with the local Department of Vocational Services (DVS) for the purpose of receiving support for their long range transition goals. | | | |

| Life Skills | | Course No. H9010SS | |
|---|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| <p>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. Instruction provided is individualized.</p> | | | |

| Living on Your Own | | Course No. H9020SS | |
|--|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| <p>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.</p> | | | |

| Life Science | | Course No. H3000SS | |
|--|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| <p>This course will focus on the following topics: branches of science, the scientific method, nutrition, exercise, anatomy, cells, plants and ecology. The goal of the class is for students to get a general overview of science and how it applies to their lives and world around them. Throughout the class students will engage in activities including experiments, labs, and creating an interactive notebook.</p> | | | |

| Community Life | | Course No. H4001SS | |
|--|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| <p>This course focuses on living as a person with a positive lifestyle, social skills and goals. Topics covered include personal wellness (self-determination, basic nutrition, and mental health), communication, conflict resolution, teamwork, drug abuse awareness and familiarity with community resources.</p> | | | |

| Personal Health | | Course No. H5000SS | |
|--|---------------------------|---------------------------|-----------------|
| Elective | Prerequisite: none | Semester | 1 credit |
| <p>Personal Health emphasizes the importance of knowledge, attitudes, and practices relating to personal health and wellness. It is a course designed to expose students to a broad range of issues and information relating to the various aspects of personal health, which include the physical, social, emotional, intellectual, spiritual and environmental aspects. Topics of exploration include, but are not limited to: Nutrition, physical fitness, schools against violence in education, child abuse and neglect recognition and reporting, stress, and weight management.</p> | | | |

TECHNOLOGY/TRADE AND INDUSTRIAL EDUCATION

Industrial Maintenance I

Course No H6151ES

Elective: Grade 12

Prerequisite: Acceptance into the Trades Academy

Semester

2 credit

Industrial maintenance technicians repair and maintain commercial or industrial equipment in buildings. Students are taught safety and precision measurement skills and gain hands-on, practical experience in welding, hydraulics, pneumatics, HVAC, electricity, mechanical fundamentals, machine alignment, technical drawings, and quality control.

Industrial Maintenance II

Course No H6152ES

Elective: Grades 9-12

Prerequisite: Acceptance into the Trades Academy

Semester

2 credit

Industrial maintenance technicians repair and maintain commercial or industrial equipment in buildings. Students are taught safety and precision measurement skills and gain hand-on, practical experience in welding, hydraulics, pneumatics, HVAC, electricity, mechanical fundamentals, machine alignment, technical drawings, and quality control.

Materials and Processes Technology

Course No. H6140ES

Elective: Grades 9-12

Prerequisite: none

Semester

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. This course is also offered at the middle school.

Technical Drawing and Design

Course No. H6110ES

Elective: Grades 9-12

Prerequisite: none

Semester

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.

Welding I

Course No. H6071DS

Elective: Grades 10-12, DE

Prerequisite: Materials and Processes Technology

Semester

1 credit

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.

| Welding II Part 1/Welding II Part 2 | | | Course No. H6081ES & H6082ES | |
|--|--|------------------|---|--|
| Elective: Grades 11-12 LFCC DE | Prerequisite: Manufacturing Systems/Welding I | Year Long | 2 credits | |
| <p>This course teaches advanced welding students to fine-tune their craft and to perform V-groove welds in all positions, using multiple welding processes. Students prepare to pass relevant industry certifications. Welding is required by a wide variety of industries, anywhere fusible materials and high heat are needed to manufacture, repair, or alter products. Professional welders are in high-demand and can earn accordingly.</p> | | | | |

| Carpentry I | | | Course No. H6030ES | |
|---|---|-----------------|---------------------------|--|
| Elective: Grades 10-12 | Prerequisite: Materials and Processes Technology | Semester | 1 credit | |
| <p>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.</p> | | | | |

| Carpentry II Part 1/Carpentry II Part 2 | | | Course No. H6041ES & H6042ES | |
|--|----------------------------------|------------------|---|--|
| Elective: Grades 11-12 | Prerequisite: Carpentry I | Year Long | 2 credits | |
| <p>Carpentry II leads to a successful transition into postsecondary education for careers in carpentry and related fields such as construction management, architecture, and others. Students are taught the safe use of hand and power tools common to the industry to complement their OSHA 10 safety credential earned in Carpentry I. Students will become proficient in assembling and installing various types of residential construction components that are current with industry standards, including rigging and job-estimating procedures, forming foundations, framing floors, walls, ceiling, roofs, trusses, roofing materials, stairs, exterior doors and windows, decks, and porches. Successfully passing this course leads to CTE program completion.</p> | | | | |

| Electronic Systems I | | | Course No. H6131ES | |
|--|---|-----------------|---------------------------|--|
| Elective: Grades 10-12 | Prerequisite: Materials and Processes Technology or Tech Drawing | Semester | 1 credit | |
| <p>This course engages students in electricity and electronic experiments that focus on the application of scientific theories and mathematics principles. Students solve problems using simple electrical devices and circuits, and design and build electronic projects using DC and AC devices and circuits. Students learn basic soldering techniques and will build an electronic device. 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.</p> | | | | |

| Electronic Systems II | | | Course No. H6132ES | |
|--|--|-----------------|---------------------------|--|
| Elective: Grades 10-12 | Prerequisite: Electronics Systems I | Semester | 1 credit | |
| <p>Students work with electronics devices, instruments, and circuits, building and designing devices to apply theories and laws with electronic components such as resistors, capacitors, and transistors. They also study integrated circuits used in computers, amplifiers, television, and other equipment. Students will build an AM/FM radio and various robotic devices. 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.</p> | | | | |

| Architectural Drawing and Design | | Course No H6120ES | |
|---|---|--------------------------|-----------------|
| Elective: Grades 9-12 | Prerequisite: Technical Drawing and Design | Semester | 1 credit |
| <p>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.</p> | | | |

| Computer Systems Technology I-A Computer Systems Technology I-B | | Course No. H6051DY & H6052DY | |
|--|--|---|------------------|
| Elective: Grades 10-12, DE | Prerequisite: Materials and Processes Technology, or Computer Information Systems | Year Long | 2 credits |
| <p>Students enter the world of computer technology and gain practical experience in assembling a computer system. Students will install, configure, and secure various operating systems. Students will install, configure, and secure various operating systems. Students will troubleshoot computers and peripherals and use system tools and diagnostic software. They develop skills in computer networking and resource sharing. In addition, students explore the relationships between internal and external computer components. Upon successful completion of the course, students may qualify to take the CompTIA A+ certification exam.</p> | | | |

| Computer Systems Technology II-A Computer Systems Technology II-B | | Course No. H6061DY & H6062DY | |
|--|--|---|------------------|
| Elective: Grades 11-12, DE | Prerequisite: Computer Systems Technology I-A & B | Year Long | 2 credits |
| <p>This advanced course provides students with training in procedures for optimizing and troubleshooting concepts for computer systems, subsystems, and networks. Students explore the follow:</p> <ul style="list-style-type: none"> • Basic network design and connectivity • Network documentation • Network limitations and weaknesses • Network security, standards and protocols <p>Students will gain a basic understanding of emerging technologies including unified communications, mobile, cloud, and virtualization technologies. The course prepares students for postsecondary education and training and a successful career in information technology. Upon successful completion of the course, students may qualify to take CompTIA's A+ and Network+ certification exams.</p> | | | |

| Imaging Technology | | Course No. H6100ES | |
|--|---------------------------|---------------------------|-----------------|
| Elective: Grades 9-12 | Prerequisite: none | Semester | 1 credit |
| <p>Imaging Technology introduces students to the basic principles of photography while providing a strong emphasis on digital imaging. Students study the development of photography as a communication medium and its evolution into the digital realm. Students learn to use image-editing software to manipulate digital images. The course will consist of independent student work outside the normal class day, computer lab hands-on demonstrations, and discussions of student work. Students will be required to keep a journal with drawing and writing assignments throughout the semester.</p> | | | |

| Video & Media Technology | | Course No. H6270ES | |
|--|---------------------------|---------------------------|-----------------|
| Elective: Grades 9-12 | Prerequisite: none | Semester | 1 credit |
| <p>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 principals of film production. The course will consist of independent student work outside the normal class day, computer lab hands-on demonstrations, and discussions of student work. Students will be required to keep a journal with drawing and writing assignments throughout the semester.</p> | | | |

| Photojournalism: Handlian Yearbook Staff | | Course No. H8110ES | |
|---|--|--------------------------------|-------------------------------|
| Elective: Grades 9-12 | Prerequisite: Application & Instructor Approval | Semester/ Year Long | 1 credit 2 credits |
| <p>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.</p> | | | |

Equal educational opportunities shall be available for all students, without regard to race, color, national origin, gender, ethnicity, religion, disability, or marital or parental status.