

John Handley High School

Program of Studies



2021-2022

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Grades 9-12



WINCHESTER PUBLIC SCHOOLS

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Dear Winchester Public Schools Families:

The Winchester Public Schools High School Program of Studies contains important information to help you understand the opportunities available for your middle and/or high school student. WPS offers a wide variety of academic, elective and programmatic courses that meet the needs of all learners. Offering a wide array of courses and programs that students can choose from is an essential component of our commitment to helping students reach their goals.

This handbook provides information regarding the Profile of a Graduate and cohort graduation requirements. Any new course offerings or changes to this document will be communicated and updated in the [online version](#).

Please take the time to review the information presented in this handbook. The information ranges from specific course selection options and the different academic levels, academic and post-secondary career planning, specialized WPS programs such as the Mountain Vista Governor's School (MVGS), National Collegiate Athletic Association (NCAA) eligibility requirements, Virginia Standards of Learning (SOL) information, graduation requirements, promotion and retention guidelines, and grade point average calculation criteria. The handbook also includes various policies and procedures.

Developing a comprehensive academic and career plan is best accomplished through collaboration between students, parents, school counselors, teachers and principals. A well developed plan will ensure that graduation requirements are met on time and that academic and personal growth are supported in preparation for post-secondary options such as college, vocational training, military service or employment.

Through these course offerings and our partnership with families, each student will be on the path to achieve their hopes and dreams. Best wishes for a successful school year.

Sincerely,

Jason Van Heukelum, Ed.D.
Superintendent

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GENERAL INFORMATION

The high school program of studies provides comprehensive information regarding graduation requirements, diploma programs, and course offerings. Course descriptions, credits and prerequisites are included in the Program of Studies. John Handley High School is a member of the Virginia High School League and is accredited by the Virginia Department of Education.

Graduation Requirements

All students must earn a minimum number of **units of credit** in grades nine through twelve based upon their diploma requirement. Typically, students are scheduled to take 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 Writing	Algebra I Geometry Algebra II	Biology Chemistry Earth Science	World History/Geography I World History/Geography II VA & US History

Promotion

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

Grade Level	Credits Required	Credit Information
Tenth Grade (Sophomore)	5	Of the five credits, three must be credits required for graduation, one of which is English.
Eleventh Grade (Junior)	11	Of the eleven credits, seven must be credits required for graduation, four of which must be English, Math, Science, and Social Studies.
Twelfth Grade (Senior)	17	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 11.

NOTES:

- High school credit is awarded for high school subjects taken in middle school (e.g. Earth Science, Algebra I, Geometry, Algebra II, world 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.

Diploma Programs

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

- Standard Studies
- Advanced Studies
- Applied Studies (reserved for students with disabilities)

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 7-10 for the requirements for the Standard Studies and Advanced Studies diplomas.



**Standard Diploma Course Requirements for Students Entering Ninth Grade for the First Time in 2018-19 and Beyond
(8 VAC 20-131-51)**

Subject Area	Standard Credits	Verified Credits	Specifications
English	4	2	All students must take the SOL Reading and Writing (or equivalent) tests in high school.
Mathematics	3	1	Courses completed to satisfy this requirement shall include at least two different course selections from among: Algebra I; Geometry; Algebra, Functions and Data Analysis; Algebra II, or other mathematics courses approved by the board to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit. All students must take a SOL math test in high school.
Laboratory Science	3	1	Courses completed to satisfy this requirement shall include course selections from at least two different science disciplines: earth sciences, biology, chemistry, or physics. Per the Standards of Quality, a computer science course credit earned by students may be considered a science course credit. Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association, or acquires a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for either a laboratory science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the board as an additional test to verify student achievement. All students must take the SOL Biology test in high school.
History & Social Sciences	3	1	Courses completed to satisfy this requirement shall include Virginia and U.S. history, Virginia and U.S. Government, and one course in either world history or geography or both. The board shall approve courses to satisfy this requirement. Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association, or acquires a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for either a laboratory science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the board as an additional test to verify student achievement. All students must take a SOL history test in high school.
Health & Physical Ed.	2	0	N/A
World Language, Fine Arts or Career Tech	2	0	Per the Standards of Quality, credits earned for this requirement shall include one credit in fine or performing arts or career and technical education. Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical course credit.
Economics & Personal Finance	1	0	N/A
Electives	4	0	Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.
Total	22	5	N/A

Additional Requirements for Graduation

- **Advanced Placement, Honors, Dual Enrollment, or Career and Technical Education Credential (pg19)** - In accordance with the Standards of Quality, students shall either (i) complete an Advanced Placement, honors, or dual enrollment course, or (ii) earn a career and technical education credential approved by the board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the standard diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment.
- **Virtual Course** - Students shall successfully complete one virtual course, which may be a non-credit-bearing course or a required or elective credit-bearing course that is offered online. The LCS Economics and Personal finance course has an online component that fulfills this requirement.
- **Training in emergency first aid, cardiopulmonary resuscitation (CPR), and the use of automated external defibrillators (AED)** - Students shall be trained in emergency first aid, CPR, and the use of AED, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation. Students with an IEP or 504 Plan that documents that they cannot successfully complete this training shall be granted a waiver from this graduation requirement, as provided in 8VAC20-131-420 B.
- **Demonstration of the five Cs** - Students shall acquire and demonstrate foundational skills in critical thinking, creative thinking, collaboration, communication, and citizenship in accordance with the Profile of a Virginia Graduate approved by the board.

Standard Diploma Course Requirements (8 VAC 20-131-51) for Students Entering Grade 9 for the First Time through 2017-2018

Subject Area	Standard Credits	Verified Credits	Specifications
English	4	2	Students must pass the SOL Reading and Writing test (or an approved substitute test).
Mathematics	3	1	Courses completed to satisfy this requirement shall include at least two different course selections from among: Algebra I; Geometry; Algebra, Functions, and Data Analysis; Algebra II, or other mathematics courses above the level of Algebra II. The board shall approve courses to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit. Students must pass a SOL math test.
Laboratory Science	3	1	Courses completed to satisfy this requirement shall include course selections from at least two different science disciplines: earth sciences, biology, chemistry, or physics. Per the Standards of Quality, a computer science course credit earned by students may be considered a science course credit. Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association, or acquire a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for (i) the student-selected verified credit and (ii) either a science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the board as an additional test to verify student achievement. Students must pass a SOL science test. An additional passed science test can fulfill the "student selected" test requirement.
History & Social Sciences	3	1	Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either world history or geography or both. The board shall approve courses to satisfy this requirement. Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association, or acquire a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for (i) the student-selected verified credit and (ii) either a science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the board as an additional test to verify student achievement. Students must pass a SOL history test. An additional passed history test can fulfill the "student selected" test requirement.
Health & Phys. Ed	2	0	N/A
World Language, Fine Arts or Career Tech	2	0	Pursuant to § 22.1-253.13:4 of the Code of Virginia, credits earned for this requirement shall include one credit in fine or performing arts or career and technical education. Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical education course credit.
Economics & Personal Finance	1	0	N/A
Electives	4	0	Courses to satisfy this requirement shall include at least two sequential electives.
Student Selected Test	0	1	A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics or other areas as prescribed by the board in 8VAC20-131-110 .
Career Tech Credential	0	0	Students shall earn a career and technical education credential approved by the Board of Education, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the standard diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment.
Total	22	6	N/A

Additional Requirements for Graduation

- For students entering the ninth-grade class for the first time in 2013-2014 and beyond: Students shall successfully complete one virtual course, which may be a non credit-bearing course or a required or elective credit-bearing course that is offered online.
- For students entering the ninth-grade class for the first time in 2016-2017 and beyond: Students shall be trained in emergency first aid, cardiopulmonary resuscitation, and the use of automated external defibrillators, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation. Students with an Individualized Education Program (IEP) or 504 Plan that documents that they cannot successfully complete this training shall be granted a waiver from this graduation requirement, as provided in [8VAC20-131-420 B](#).

Advanced Studies Diploma Course Requirements for Students Entering Ninth Grade for the First Time in 2018-19 and Beyond (8 VAC 20-131-51)

Subject Area	Standard Credits	Verified Credits	Specifications
English	4	2	All students must take the SOL Reading and Writing (or equivalent) test in high school.
Mathematics	4	1	Courses completed to satisfy this requirement shall include at least three different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II. The board shall approve courses to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit. All students must take a SOL math test in high school.
Laboratory Science	4	1	Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics. Per the Standards of Quality, a computer science course credit earned by students may be considered a science course credit. All students must take the SOL Biology test in high school.
History & Social Sciences	4	1	Courses completed to satisfy this requirement shall include Virginia and U.S. history, Virginia and U.S. Government, and two courses in either world history or geography or both. The board shall approve additional courses to satisfy this requirement. All students must take a SOL history test in high school.
World Language	3	0	Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.
Health & Phys. Ed	2	0	N/A
Fine Arts or Career Tech	1	0	Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical credit.
Economics & Personal Finance	1	0	N/A
Electives	3	0	Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.
Total Credits	26	5	N/A

Additional Requirements for Graduation

- **Advanced Placement, Honors, Dual Enrollment, or Career and Technical Education Credential (pg19)** - In accordance with the Standards of Quality, students shall either (i) complete an Advanced Placement, honors, or dual enrollment course, or (ii) earn a career and technical education credential approved by the board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the standard diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment.
- **Virtual Course** - Students shall successfully complete one virtual course, which may be a non-credit-bearing course or a required or elective credit-bearing course that is offered online. The LCS Economics and Personal finance course has an online component that fulfills this requirement.
- **Training in emergency first aid, cardiopulmonary resuscitation (CPR), and the use of automated external defibrillators (AED)** - Students shall be trained in emergency first aid, CPR, and the use of AED, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation. Students with an IEP or 504 Plan that documents that they cannot successfully complete this training shall be granted a waiver from this graduation requirement, as provided in 8VAC20-131-420 B.
- **Demonstration of the five Cs** - Students shall acquire and demonstrate foundational skills in critical thinking, creative thinking, collaboration, communication, and citizenship in accordance with the Profile of a Virginia Graduate approved by the board.

Advanced Studies Diploma Course Requirements (8 VAC 20-131-51) for Students Entering the Ninth Grade for the First Time in 2011-2012 through 2017-2018

Subject Area	Standard Credits	Verified Credits	Specifications
English	4	2	Students must pass the SOL Reading and Writing tests (or an approved substitute test).
Mathematics	4	2	Courses completed to satisfy this requirement shall include at least three different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II. The board shall approve courses to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit. Students must pass two SOL math tests.
Laboratory Science	4	2	Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. The board shall approve additional courses to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a science course credit. Students must pass two SOL science tests. An additional passed science test can fulfill the "student selected" test requirement.
History & Social Sciences	4	2	Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either world history or geography or both. The board shall approve additional courses to satisfy this requirement. Students must pass a SOL history test. An additional passed history test can fulfill the "student selected" test requirement.
World Language	3	0	Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.
Health & Phys. Ed	2	0	N/A
Fine Arts or Career Tech	1	0	Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical education course credit.
Economics & Personal Finance	1	0	N/A
Electives	3	0	N/A
Student Selected Test	0	1	A student may utilize additional tests for earning verified credit in computer science, technology, career or technical education, economics or other areas as prescribed by the board in 8VAC20-131-110 .
Total	26	9	N/A

Additional Requirements for Graduation

- For students entering the ninth-grade class for the first time in 2013-2014 and beyond: Students shall successfully complete one virtual course, which may be a non credit-bearing course or a required or elective credit-bearing course that is offered online.
- For students entering the ninth-grade class for the first time in 2016-2017 and beyond: Students shall be trained in emergency first aid, cardiopulmonary resuscitation, and the use of automated external defibrillators, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation. Students with an Individualized Education Program (IEP) or 504 Plan that documents that they cannot successfully complete this training shall be granted a waiver from this graduation requirement, as provided in [8VAC20-131-420 B](#).

Computation of GPA and Weighted Grades

A student's grade point average (GPA) 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 (DE) (even if community college enrollment was not completed), or Mountain Vista Governor's School (MVGS) course, each grade is worth more QP; however, MVGS courses which are not AP, DE, or 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/DE course and the last "B" was in an AP/DE 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 AP and DE 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 full weighted credit for an AP course, the student must take the associated AP exam. Students enrolled in AP courses that elect not to take the associated AP exam will be awarded 4.5 quality points.

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

Quality Points Per Credit

Advanced Placement and AP Exam	Dual Enrollment, MVGS, or JHHS Advanced Placement Courses, w/o Exam	All Other Courses
A - 5	A - 4.5	A - 4
B - 4	B - 3.5	B - 3
C - 3	C - 2.5	C - 2
D - 2	D - 1.5	D - 1
F - 0	F - 0	F - 0

Repeating 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 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 weigh 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 weigh the course.
4. If a course is not weighted and is not noted as an AP or DE course, the grade will not be weighted.
5. In any case in which the appropriate GPA weight for a transfer course is unclear, the superintendent's designee will research the content and rigor of the course in question and will determine the weight of the course.

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 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 Biliteracy 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.

Board of Education's Diploma Seal for Science, Technology, Engineering, and Mathematics (STEM)- The Board of Education's STEM Seal shall be awarded to students who earn either a Standard Diploma or an Advanced Studies Diploma and satisfy all Math and Science requirements for the Advanced Studies diploma with a "B" average or better in all course work, **and**

- Successfully complete a 50 hour or more work-based learning opportunity in a STEM area, and
- Satisfy all requirements for a Career and Technical Education concentration. A *concentration* is a coherent sequence of two or more state-approved courses as identified in the course listing within the [CTE Administrative Planning Guide](#) , and
- Pass one of the following:
 - A Board of Education CTE STEM-H credential examination, or
 - An examination approved by the Board that confers a college-level credit in a STEM field.

Board of Education's Seal for Excellence in Science and the Environment (*AVAILABLE TO STUDENTS WHO ENTERED 9TH GRADE IN 2018-2019 OR THEREAFTER*)- Is awarded to students who meet each of the following criteria:

- Earn either a Standard or Advanced Studies Diploma
- Complete at least three different first-level board-approved laboratory science courses and at least one rigorous advanced-level or postsecondary-level laboratory science course, each with a grade of "B" or higher
- Complete laboratory or field-science research and present that research in a formal, juried setting
- Complete at least 50 hours of voluntary participation in community service or extracurricular activities that involve the application of science such as environmental monitoring, protection, management, or restoration.

Board of Education's Advanced Mathematics & Technology Seal (*ONLY FOR STUDENTS WHO ENTERED 9TH GRADE PRIOR TO 2018-19*)- 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.

Scheduling and Special Course Information

Student Schedule Adjustments

A specific deadline date for course request changes will be established each school year. After the first two weeks of instruction students will not be allowed to drop from a course unless extenuating circumstances exist as determined by the principal. 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; and
- 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; and
- Final approval for schedule change requests rests with the principal.

Expungement

The parent of any student who, while in middle school, took a high school credit-bearing course may elect to have the grade (and credit) permanently expunged (removed) from the student's transcript. If the parent elects to have such a grade permanently expunged, written notice of such election must be given by the parent to the student's middle school counselor or to the school counseling department of the high school the student will attend (rising 9th graders), on or before August 1st of the year in which the student finishes 8th grade. Parents of students eligible to make this election shall be provided written notice thereof and a form to be used for such election when the student receives the final report card from the middle school. For other expungement questions see ***WPS Policy JO - School Records***.

Dual Enrollment (DE)

Students at John Handley High School may earn college credit from Lord Fairfax Community College or other area colleges/universities through dual enrollment. Prior to enrolling in dual enrollment courses students must pass the Virginia Placement Test (VPT). 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.

The transferability of a college course to another college or university for credit is determined by the receiving institution. Normally, academic courses intended for transfer with a grade of "C" or better will transfer to four-year institutions of higher learning; however, no guarantee can be made to students regarding transferability to all colleges and universities. This information may be found on most college and university websites or by contacting the office of admissions.

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. **Course fees will be assessed by the college, and the student portion of the payment is the responsibility of the student and the family. Lord Fairfax Community College offers a reduced fee per course for John Handley High School students. Contact the counseling department for more information.**

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 Counseling Department. John Handley High School offers over 20 dual-enrollment courses (core area, career and technical, and AP) during the 2020-2021 school year. Dual enrollment offerings may vary from year to year. Projected dual enrollment courses for the 2021-2022 school year are noted as such within the department course descriptions and are subject to change based on the credentials of teaching staff.

Lord Fairfax Community College is not bound by WPS 504 or IEP accommodations already established. Questions about these accommodations can be found at [Accommodations and Disability Services at LFCC](#).

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 21, 2021
- Virtual Virginia enrollment closes each school year on August 2, 2021.
- 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 higher;
 - 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 one-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 School Board 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 (Policy IKFD). 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, approval by the superintendent's designee 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; and
- 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 are given the opportunity to retest if they choose to do so. 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.

Scholastic Aptitude Test (SAT) Reasoning Test

- 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.

Scholastic Aptitude Test (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.

National Collegiate Athletic Association (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 courses are designated NCAA in the course catalog.
- [For more information, students should visit www.eligibilitycenter.org.](http://www.eligibilitycenter.org)

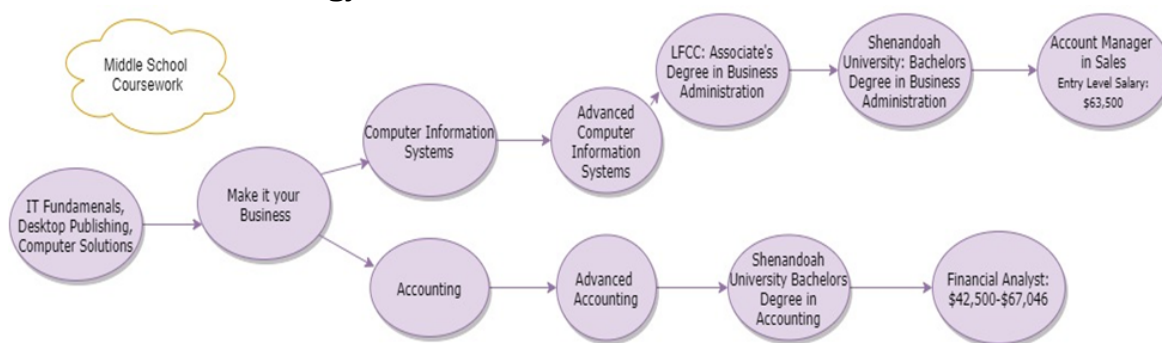
Career and Technical Education (CTE)

Career and Technical Education (CTE) provides students with an abundance of opportunities to explore career options in settings that anticipate and address every student's needs. Our students are entering a highly competitive workforce and to be career and college ready they need to be able to integrate 21st Century skills, technical knowledge and skills, and core academic knowledge.

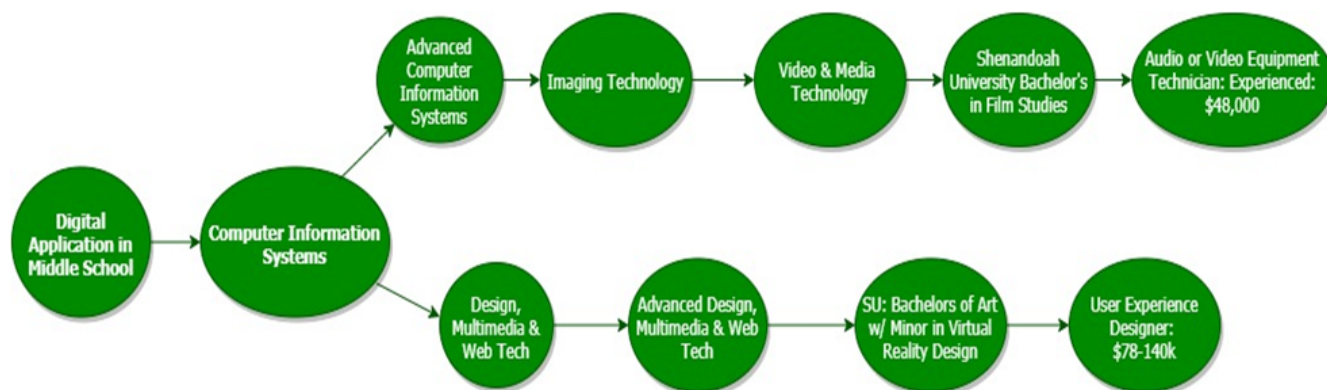
With an emphasis on real world, problem-based learning, and real life skills we strive to provide the opportunities for all students to get the exposure they desire to graduate from Winchester Public Schools ready for what's next in life. There is nothing more exciting than seeing students engaged in studies and real world projects that spark their imaginations. From carpentry, welding, applied materials, to medical labs, to materials and processing we are providing hands-on courses that are aligned with rigorous industry and academic standards. Here you will see examples of the career pathway opportunities and some sample career options.

To learn more about the Emil and Grace Shihadeh Innovation Center, the academies, and associated career pathways and sample career options go to page 69.

Business Information Technology



Arts, Audio-Visual Technology, and Communications



Marketing Strategy



Career and Technical Education (CTE) Courses and Completers

The following pages contain CTE courses and available completer courses. A CTE Completer is a student who has earned two or more standard high school credits for state-approved courses in a CTE concentration and meets the requirements for high school graduation. A Concentration is a coherent sequence of two or more courses within a program area as defined by the Virginia Department of Education (VDOE).

Economics & Personal Finance

- Graduate Requirement- Not a completer course

Virginia Teachers for Tomorrow I

- Virginia Teachers for Tomorrow II

Principles of Business & Marketing

- Accounting
- Advanced Accounting
- Computer Information Systems
- Advanced Computer Information Systems
- Design, Multimedia, & Web Technologies
- Adv. Design, Multimedia, & Web Technologies
- Entrepreneurship
- Marketing
- Advanced Marketing
- Medical Systems Administration
- Sports Entertainment Marketing

Entrepreneurship

- Accounting
- Advanced Accounting
- Computer Information Systems
- Advanced Computer Information Systems
- Marketing
- Advanced Marketing
- Principles of Business & Marketing
- Sports and Entertainment Marketing

Accounting

- Advanced Accounting
- Computer Information Systems
- Advanced Computer Information Systems
- Design, Multimedia, & Web Technologies
- Adv. Design, Multimedia, & Web Technologies
- Entrepreneurship
- Medical Systems Administration
- Principles of Business & Marketing

Advanced Accounting

- Computer Information Systems
- Advanced Computer Information Systems
- Design, Multimedia, & Web Technologies
- Adv. Design, Multimedia, & Web Technologies
- Entrepreneurship
- Medical Systems Administration
- Principles of Business & Marketing

Computer Information Systems

- Accounting
- Advanced Accounting
- Advanced Computer Information Systems
- Design, Multimedia, & Web Technologies
- Adv. Design, Multimedia, & Web Technologies
- Entrepreneurship
- Information Technology Fundamentals
- Medical Systems Administration
- Principles of Business & Marketing
- Computer Programming
- Advanced Computer Programming

Advanced Computer Information Systems

- Accounting & Advanced Accounting
- Computer Information Systems

Advanced Computer Information Systems Contd.

- Design, Multimedia, & Web Technologies
- Adv. Design, Multimedia, & Web Technologies
- Entrepreneurship
- Information Technology Fundamentals
- Medical Systems Administration
- Principles of Business & Marketing
- Computer Programming
- Advanced Computer Programming

Design, Multimedia, and Web Technologies

- Accounting and Advanced Accounting
- Computer Information Systems
- Advanced Computer Information Systems
- Adv. Design, Multimedia, & Web Technologies
- Information Technology Fundamentals
- Medical Systems Administration
- Principles of Business & Marketing
- Computer Programming
- Advanced Computer Programming

Advanced Design, Multimedia, and Web Technologies

- Accounting & Advanced Accounting
- Computer Information Systems
- Advanced Computer Information Systems
- Design, Multimedia, & Web Technologies
- Information Technology Fundamentals
- Medical Systems Administration
- Principles of Business & Marketing
- Computer Programming
- Advanced Computer Programming

Medical Systems Administration

- Accounting & Advanced Accounting
- Computer Information Systems
- Advanced Computer Information Systems
- Design, Multimedia, & Web Technologies
- Adv. Design, Multimedia, & Web Technologies
- Information Technology Fundamentals
- Introduction to Health & Medical Sciences
- Principles of Business & Marketing

Information Technology Fundamentals

- Computer Information Systems
- Advanced Computer Information Systems
- Design, Multimedia, & Web Technologies
- Adv. Design, Multimedia, & Web Technologies
- Medical Systems Administration

Computer Programming

- Computer Information Systems
- Advanced Computer Information Systems
- Design, Multimedia, & Web Technologies
- Adv. Design, Multimedia, & Web Technologies
- Advanced Computer Programming

Advanced Computer Programming

- Computer Information Systems
- Advanced Computer Information Systems
- Design, Multimedia, & Web Technologies
- Adv. Design, Multimedia, & Web Technologies
- Computer Programming

Cyber Security Fundamentals

- Cybersecurity Systems Technology- A
- Cybersecurity Systems Technology- B

Cyber Security Technology I- A

- Cyber Security Fundamentals
- Advanced Cyber Security Technology II-A
- Advanced Cyber Security Technology II-B

Cyber Security Technology I- B

- Cyber Security Fundamentals
- Advanced Cyber Security Technology II-A
- Advanced Cyber Security Technology II-B

Advanced Cyber Security Technology II- A

- Cyber Security Technology I- A
- Cyber Security Technology I- B

Advanced Cyber Security Technology II- B

- Cyber Security Technology I- A
- Cyber Security Technology I- B

Imaging Technology

- Video & Media Technology

Video & Media Technology

- Imaging Technology

Introduction to Health & Medical Sciences

- Medical Systems Administration
- Medical Laboratory I
- Nurse Aide I
- Physical/Occupational Therapy I
- Physical/Occupational Therapy II

Medical Laboratory Technology I

- Introduction to Health & Medical Sciences

Medical Laboratory Technology II

- Medical Laboratory Technology I

Nurse Aide I

- Introduction to Health & Medical Sciences
- Nurse Aide II

Nurse Aide II

- Nurse Aide I
- Patient Care Technician

Patient Care Technician

- Nurse Aide II

Emergency Medical Technician I

- Emergency Medical Technician II

Emergency Medical Technician II

- Emergency Medical Technician I

Physical/Occupational Therapy I

- Introduction to Health & Medical Sciences

Medical Systems Administration

- Accounting
- Advanced Accounting
- Computer Information Systems
- Advanced Computer Information Systems
- Design, Multimedia, & Web Technologies
- Advanced Design, Multimedia, & Web Technologies
- Information Technology Fundamentals
- Introduction to Health & Medical Sciences
- Principles of Business & Marketing

Principles of Business & Marketing

- Accounting
- Advanced Accounting
- Computer Information Systems
- Advanced Computer Information Systems
- Design, Multimedia, & Web Technologies
- Advanced Design, Multimedia, & Web Technologies
- Entrepreneurship
- Marketing
- Advanced Marketing
- Medical Systems Administration
- Sports Entertainment Marketing

Marketing

- Entrepreneurship
- Advanced Marketing
- Principles of Business & Marketing
- Sports Entertainment Marketing

Advanced Marketing

- Entrepreneurship
- Marketing
- Principles of Business & Marketing
- Sports Entertainment Marketing

Sports Entertainment Marketing

- Entrepreneurship
- Marketing
- Advanced Marketing
- Principles of Business & Marketing

Materials & Processes Technology

- *Not a complete course*

Technical Drawing & Design

- Architectural Drawing and Design

Architectural Drawing and Design

- Technical Drawing and Design

Electronic Systems I

- Electronic Systems II

Electronic Systems II

- Electronic Systems I

Industrial Maintenance I

- Industrial Maintenance II

Industrial Maintenance II

- Industrial Maintenance I

Welding I

- Welding II- Part I
- Welding II- Part II

Welding II- Part I

- Welding I

Welding II- Part II

- Welding I

Carpentry I

- Carpentry II- Part 1
- Carpentry II- Part 2

Carpentry II- Part 1

- Carpentry I

Carpentry II – Part 2

- Carpentry I

Work-Based Learning

Work-Based Learning (WBL) is comprised of school-coordinated workplace experiences that are related to students' career goals and/or interests, are integrated with instruction, and are performed in partnership with local businesses and organizations. WBL experiences are opportunities for students to apply and refine knowledge, attitudes, and skills through professionally coordinated and supervised work experience directly related to career goals. The Virginia Department of Education (VDOE) recognizes 11 types of WBL experiences and certain experiences are eligible for high school credit. The below provides an overview of the types of learning experiences.

Course Number if Credit may be Earned	Method	Description	Paid or Unpaid	Work Experience Hours Required	Credit Awarded
Not Applicable	Job Shadowing	Short-term experience that allows a student to explore a career or cluster	Unpaid	At least four hours	No
Not Applicable	Externship	Longer-term job shadow that allows more in depth career exploration at a business or industry site	Unpaid	40 hours	No
Not Applicable	Mentorship	In depth opportunity to learn about an industry through visits and completion of a related project	Unpaid	Varies by program	0.5 for every 140 hours completed
Not Applicable	Service Learning	Community service planned by students and directly related to their CTE course and instruction	Unpaid	Varies by program	No
<i>Pending</i>	Internship	Hands-on experience for students to prepare for a career.	*Could be either Refer to FLSA Criteria	280 hours	1 credit for every 280 hours completed
H9130ES	Cooperative Education	Hands-on work experience directly related to a CTE course	Paid	280 hours	1 credit for every 280 hours completed
Not Applicable	Youth Registered Apprenticeship	Enrollment in a CTE course with related on-the-job training provided by the employer	Paid	280 hours	1 credit for every 280 hours completed
Not Applicable	Registered Apprenticeship	Related instruction and on-the-job training both provided by the employer	Paid	Varies by Program	

* See the Test for Unpaid Interns and Students, Fact Sheet #71: Internship programs Under the Fair Labor Standards Act.

<https://www.dol.gov/agencies/whd/fact-sheets/71-flsa-internships>

Industry Credentials Opportunities

Industry Credentials provide students the opportunity to earn an industry recognized certification that demonstrates the skills attained while in high school. Credentials earned should be added to a student's resume when applying for future jobs.



Continuous Non-Discrimination Notice

The Winchester Public School Board is committed to nondiscrimination with regard to sex, sexual orientation, gender, gender identity, race, color, national origin, disability, religion, ancestry, age, marital status, pregnancy, childbirth or related medical conditions, disability, status as a veteran, genetic information or any other characteristic protected by law or based on a belief that such characteristic exists.

This commitment prevails in all of its policies and practices concerning staff, students, educational programs and services, and individuals and entities with whom the Board does business.

Please contact the individuals below regarding inquiries on our non-discrimination policies:

Title IX Coordinator

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

Section 504 Coordinator

Dr. April Bruce
Coordinator of Student Services
12 N. Washington Street
Winchester, VA 22601
(540) 667-4253

COURSE OFFERINGS

This page contains a listing of all courses in the high school curriculum.

Academic Support

- Study Skills I
- Study Skills II
- Study Skills for Success in Advanced Courses
- Foundations of Language Arts I & II
- Personal Living and Finance
- Resource
- Work Opportunities
- Functional Math
- Foundations of Math I
- Foundations of Math II
- Foundations of Algebra
- Functional Language Arts
- Reading I and Reading II
- World of Work
- Work Center
- Workshop
- Life Skills
- Community Life
- Living on Your Own

Art

- Art Foundations
- Drawing & Painting I
- Drawing & Painting II
- Sculpture I
- Sculpture II
- Visual Communications Design
- AP Studio Art: 2-D Design
- AP Studio Art: 3-D Design

Business & Information

Technology

- Economics & Personal Finance
- Medical Systems Administration
- Entrepreneurship
- Accounting
- Advanced Accounting
- Computer Information Systems (CIS)
- Advanced Computer Information Systems
- Design, Multimedia, & Web Technologies
- Advanced Design, Multimedia, & Web Technologies
- Cooperative Office Education
- Principles of Business and Marketing
- Information Technology Fundamentals
- Computer Programming
- Advanced Computer Programming

Education and Training

- Virginia Teachers for Tomorrow I
- Virginia Teachers for Tomorrow II

English

- English 9
- Honors English 9
- English 10
- Honors English 10
- English 11
- AP English Language and Composition
- English 12
- AP English Literature and Composition
- Improvisation
- Theatre I: Speech and Drama
- Forensics: Speech Events
- Forensics: Debate events
- Creative Writing & Miscellanea

English Learners

- English as a Second Language 1
- English as a Second Language 2
- English as a Second Language 3
- Transitional English for ELs (9/10) (11/12)
- English 9 for ELs
- EL Literacy Skills
- EL Integrated Science
- Biology for ELs (Part 1 and Part 2)
- EL Integrated History
- Algebra 1 for ELs (Part 1 and Part 2)
- EL Strategies for Success

Kinesiology & Health

- Kinesiology 9 - Health & PE
- Kinesiology 10 - Driver Educations, Health & PE
- Advanced Kinesiology - Team Sports
- Advanced Kinesiology - Weight Training

Marketing

- Marketing
- Advanced Marketing
- Entrepreneurship
- Sports Entertainment Marketing
- Marketing Cooperative Education
- Principles of Business and Marketing

Mathematics

- Algebra I, Algebra I Part I, Algebra 1 Part 2
- Geometry
- Honors Geometry
- Algebra, Functions and Data Analysis
- Algebra II
- Honors Algebra II
- Pre-Calculus
- Probability and Statistics
- Calculus A&B
- AP Statistics A&B
- AP Calculus AB
- AP Calculus BC
- Computer Math

Music

- Symphonic Band
- Marching Band
- Beginning Guitar
- Intermediate Guitar
- Jazz Ensemble and Improvisation
- Basic Ukulele
- Treble Ensemble
- Advanced Treble Ensemble
- Concert Choir
- Chamber Choir
- Gaveliers

Science

- Earth Science
- Environmental Science
- Biology
- Honors Biology
- Biology II: Ecology
- AP Biology
- Chemistry
- AP Chemistry

Science Contd.

- Physics
- AP Physics C (Mechanics)
- AP Physics C (Electricity and Magnetism)
- AP Environmental Science
- Astronomy

Social Studies

- World History and Geography 1
- Honors World History and Geography 1
- World History and Geography 2
- AP World History
- Virginia and U.S. History
- AP U.S. History
- Virginia and U.S. Government 12
- Introduction to Psychology
- AP Government and Politics
- History of Latin America
- African American History

Technology / Trade and Industrial Education

- Industrial Maintenance I
- Industrial Maintenance II
- Imaging Technology
- Video and Media Technology

World Language

- German I, German II, German III, German IV
- AP German Language and Culture
- French I, French II, French III, French IV
- AP French Language and Culture
- Latin I, Latin II, Latin III
- AP Latin
- Spanish I, Spanish II, Spanish III, Spanish IV
- AP Spanish Language and Culture
- Spanish for Fluent Speakers 1
- Spanish for Fluent Speakers 2
- Spanish for Fluent Speakers 3

Work-Based Learning

- *Refer to page 21*

Advanced Technologies Academy

- Cybersecurity Fundamentals
- Cybersecurity Technology I
- Advanced Cybersecurity Technology II
- Electronic Systems I
- Electronic Systems II

Professional Skills Academy

- Materials and Processes Technology
- Welding I
- Welding II
- Carpentry I
- Carpentry II
- Architectural Drawing and Design
- Technical Drawing and Design

Health Sciences Academy

- Introduction to Health and Medical Sciences
- Emergency Medical Technician I/II
- Medical Laboratory Technology I
- Medical Laboratory Technology II
- Nurse Aide I
- Nurse Aide II
- Patient Care Technician
- Physical / Occupation Therapy I
- Physical / Occupation Therapy II
- Anatomy and Physiology

ACADEMIC SUPPORT

These courses are designed for eligible students.

Study Skills I		Course No. H9170EY	
Elective	Prerequisite: none	Year-Long	1 credit
This course includes a review of content standards covered on specific SOL tests. This course will focus on specific content measured on the test and on study and test taking strategies. Specific diagnostic information from practice SOL testing will guide direct teaching and computer-assisted instruction targeting each student's knowledge and skills deficits.			

Study Skills II		Course No. H9171EY	
Elective	Prerequisite: none	Year-Long	1 credit
This course continues application of skills for the review of content standards covered on specific SOL tests. This course will focus on specific content measured on the test and on study and test taking strategies. Specific diagnostic information from practice SOL testing will guide direct teaching and computer-assisted instruction targeting each student's knowledge and skills deficits. This course also teaches students to select specific study skills that match their learning styles and how to apply creativity, communication, critical thinking, collaboration, and citizenship skills to future courses and their post-secondary experiences.			

Study Skills for Success in Advanced Courses		Course No. H9172EY	
Elective	Prerequisite: none	Year-Long	1 credit
This course is designed to support students who are taking an advanced, AP, or Dual Enrollment course with study skills for enhanced success in the advanced course.			

Foundations of Language Arts I & II		Course No. H1010SY & H1022SY	
Elective	Prerequisite: none	Year-Long	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.			

Personal Living and Finance		Course No. H2003SY	
Elective	Prerequisite: none	Year-Long	1 credit
This course is designed for students who have successfully completed Algebra I. Course content includes computing and understanding taxes, preparing and balancing a personal/family budget, managing debt, comparing various savings options, and identifying consumer rights and responsibilities.			

Resource		Course No. H9001SY	
Elective	Prerequisite: none	Year-Long	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.H9110SY
Elective	Prerequisite: none	Year-Long	1 credit
This course is intended for students who are found eligible to 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.H2000SY
Elective	Prerequisite: none	Year-Long	1 credit
This course is 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).			

Foundations of Math I			Course No.H2001SY
Elective	Prerequisite: none	Year-Long	1 credit
In this course, students 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.			

Foundations of Math II			Course No.H2002SY
Elective	Prerequisite: Foundations of Math I	Year-Long	1 credit
In this course, students 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.			

Foundations of Algebra			Course No.H2011SY
Elective	Prerequisite: none	Year-Long	1 credit
This course is designed 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.			

Functional Language Arts			Course No.H1000SY
Elective	Prerequisite: none	Year-Long	1 credit
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.			

Reading I

Course No.H1101SY

Elective	Prerequisite: none	Year-Long	1 credit
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This course is for students to increase their reading skills/ability. This course will focus on phonics skills, fluency, accuracy, and comprehension. Throughout this semester students will also work on spelling skills. They will also learn about making predictions, differentiating between fiction and non-fiction and recognizing essential sight words. Students will be introduced to a variety of materials and receive instruction on test taking strategies for standardized reading tests.

Reading II

Course No. H1102SY

Elective	Prerequisite: none	Year-Long	1 credit
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In this course, students 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.

World of Work

Course No.H9080SY

Elective	Prerequisite: none	Year-Long	1 credit
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This course includes topics such as 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. H9100SY

Elective	Prerequisite: none	Year-Long	2 credits
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In this course, 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.H9090SY

Elective	Prerequisite: none	Year-Long	1 credit
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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.H9010SY	
Elective	Prerequisite: none	Year-Long	1 credit
This course is designed to help students develop skills needed to increase their ability to be independent in the home, school, community, and work environments. Instruction is provided in a small group setting with individualized attention. Students are introduced to and practice life skills in the key areas of hygiene and health habits, time management, safety, money and purchasing, and social skills/communication. In addition, instruction is based on Individualized Educational Plans with instruction adjusted in response to data collection. Instruction provided is individualized.			

Community Life		Course No.H4001SY	
Elective	Prerequisite: none	Year-Long	1 credit
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.			

Living on Your Own		Course No. H9020SY	
Elective	Prerequisite: none	Year-Long	1 credit
This course is designed to help students experience what life is like after graduation and to develop essential life management skills needed to make good decisions related to employment, money management, and housing. The class is taught as an ongoing independent living simulation.			

ART

Art Foundations			Course No.H807YES
Elective	Prerequisite: none	Year-Long	1 credit
This is an introductory art course. 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 year.			

Drawing & Painting I			Course No.H8081EY
Elective	Prerequisite: Art Foundations	Year-Long	1 credit
In this course 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 year.			

Drawing & Painting II			Course No.H8082EY
Elective	Prerequisite: Drawing & Painting I	Year-Long	1 credit
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 mediums 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 year.			

Sculpture I			Course No.H8091EY
Elective	Prerequisite: Art Foundations	Year-Long	1 credit
This course explores ceramics, plaster, figure modeling, cardboard and ordinary object assemblage, and fabrication. The sculpture 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 year.			

Sculpture II			Course No.H8092EY
Elective	Prerequisite: Sculpture I	Year-Long	1 credit
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 mediums 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 year.			

Visual Communications Design			Course No. H8110EY
Elective: Grades 10-12	Prerequisite: Application and Instructor Approval	Year-Long	1 credit
<p>This course helps produce the annual student publication. In this course, students will gain skills in the following areas: page design, publishing techniques, copywriting, editing, photography, record keeping, time management, teamwork, marketing, and leadership skills. Students are tasked with producing a timeless, creative, and innovative publication which will record our school's community, memories and events.</p> <p>*This course may be repeated for additional credits with no more than one per year.</p>			

AP Studio Art: 2-D Design			Course No.H8101AY
Elective: Grades 11-12	Recommended: Art Foundations, Drawing and Painting I & II Required: Portfolio Review	Year-Long	1 credit
<p>This course is designed as a performance-based studio experience for the dedicated Advanced 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. Students 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 two sections: Quality and Concentration. Students will be required to keep a sketchbook with drawing and writing assignments throughout the semester. Summer projects are required for this 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.H8102AY
Elective: Grades 11-12	Recommended: Art Foundations, Sculpture I & II Required: Portfolio Review	Year-Long	1 credit
<p>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 the student's own personal style. Critiques with peers and the 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 and Concentration sections of the portfolio. Students will be required to keep a sketchbook with drawing and writing assignments throughout the semester. Summer projects are required for this course. Students will be required to submit a portfolio at the end of the spring semester.</p>			

BUSINESS & INFORMATION TECHNOLOGY

Accounting		Course No.H6091SY	
Elective: Grades 10-12	Prerequisite: none	Year-Long	1 credit
<p>In this course, students will 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.H6092VY	
Elective: Grades 10-12	Prerequisite: Accounting	Year-Long	1 credit
<p>In this course, students will 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>			

Computer Information Systems (CIS)		Course No.H6201DY	
Elective: Grades 9-12; DE	Prerequisite: none	Year-Long	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> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn three college credits through Lord Fairfax Community College (LFCC AST 141). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

Advanced Computer Information Systems			Course No.H6202DY	
Elective: Grades 10-12; DE	Prerequisite: CIS	Year-Long	1 credit	
<p>In this course, 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> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of each semester. Students who wish to take this course as a dual enrollment course can earn three college credits through Lord Fairfax Community College (LFCC BUS 226). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>				

Economics & Personal Finance			Course No.H6010RY
Required	Recommended Grades: 10 and 11	Year-Long	1 credit
In this course, students will 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.			

Medical Systems Administration			Course No.H6160DY
Elective: Grades 11-12; DE	Prerequisite: None	Year-Long	1 credit
<p>In this course, students seeking to gain employment in the medical field will 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> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of each semester. Students who wish to take this course as a dual enrollment course can earn six college credits through Lord Fairfax Community College (LFCC HIM 111 & 112). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

Entrepreneurship		Course No.H6260EY	
Elective: Grades 10-12	Prerequisite: none	Year-Long	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>			

Design, Multimedia, & Web Technologies (DMW)		Course No.H6221DY	
Elective: Grades 10-12; DE	Prerequisite: none	Year-Long	1 credit
<p>In this course, 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> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn three college credits through Lord Fairfax Community College (LFCC ITD 110). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

Advanced Design, Multimedia, & Web Technologies		Course No.H6222VY	
Elective: Grades 11-12	Prerequisite: DMW	Year-Long	1 credit
<p>In this course, 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>			

Cooperative Office Education (COE)		Course No.H9120EY	
Elective: Grades 11-12	Co-requisite: Enrollment in specific Business courses	Year-Long	1 credit
<p>This course 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 280 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>			

Information Technology Fundamentals			Course No. H6200EY
Elective: Grades 9-12	Prerequisites: None	Year-Long	1 credit
<p>This course introduces the essential technical and professional skills required for students to pursue programs leading to professional careers and information technology certifications. The course introduces skills related to digital technology, digital applications, maintenance/upgrading/troubleshooting, and networking fundamentals. Students also explore ethical issues related to computers and Internet technology and examine web page and game design. This course is also offered at the middle school.</p>			

Computer Programming			Course No. H6211EY
Elective: Grades 10-12	Prerequisite: None	Year-Long	1 credit
<p>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. Platform-independence of Java has allowed programmers to create applications for the masses making it one of the most utilized of programming languages. 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.</p>			

Advanced Computer Programming			Course No. H6212VY
Elective: Grades 11-12; DE	Prerequisite: Computer Programming	Year-Long	1 credit
<p>In this course, students build 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.</p> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn three college credits through Lord Fairfax Community College (LFCC CSC 200). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

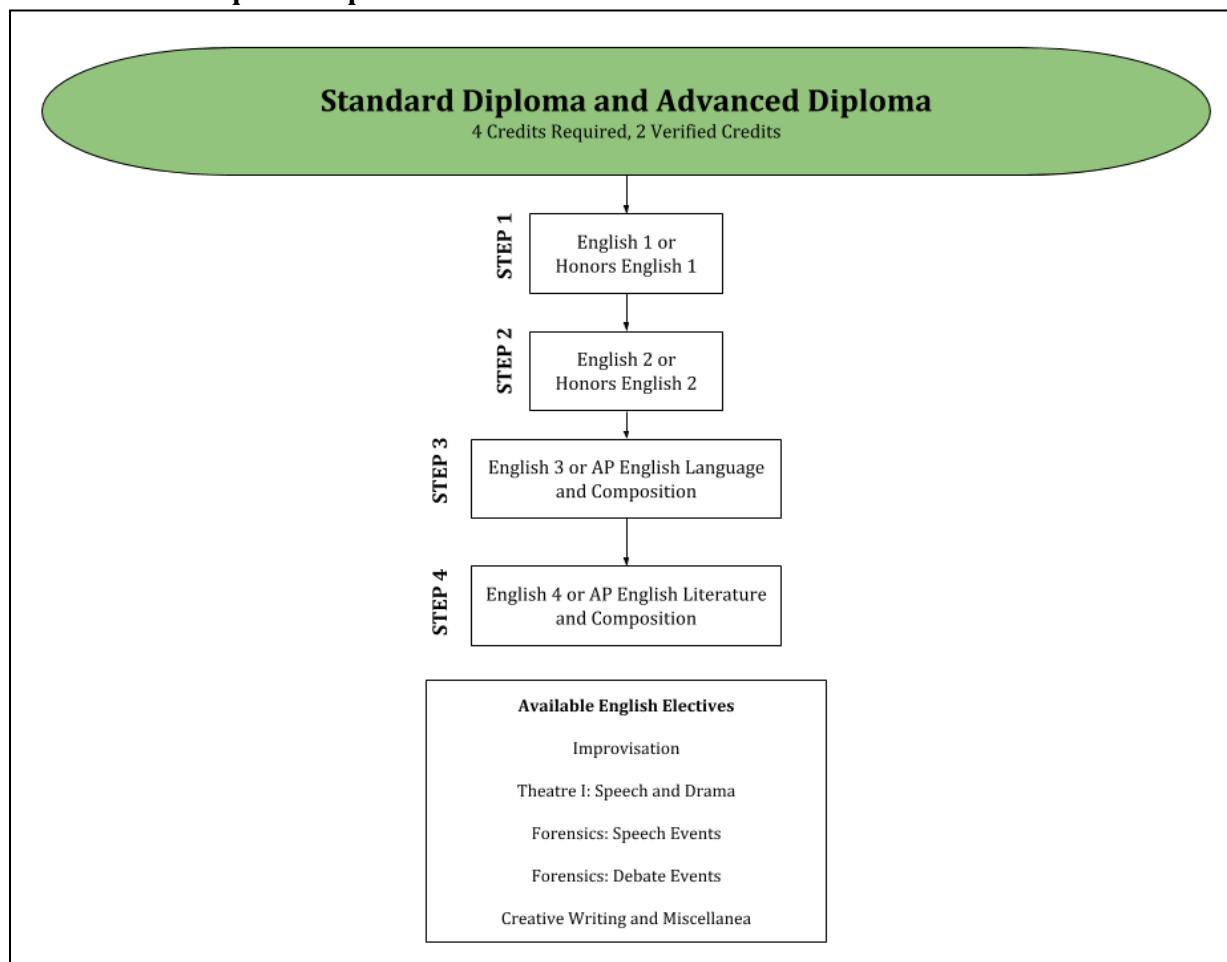
EDUCATION & TRAINING

Virginia Teachers for Tomorrow I		Course No.H6921EY	
Elective: Grades 11-12; DE	Prerequisite: none	Year-Long	1 credit
<p>In this course, 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. This course fosters student interest, understanding, and appreciation of the teaching profession and allows secondary students to explore careers in education. Additional educational leadership opportunities are offered through the student organization, Future Educators Association.</p> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn three college credits through Shenandoah University. Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

Virginia Teachers for Tomorrow II		Course No.H6922EY	
Elective: Grades 11-12; DE	Prerequisite: VA Teachers for Tomorrow I	Year-Long	1 credit
<p>In this subsequent course 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.</p> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn three college credits through Shenandoah University. Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

ENGLISH

English Instructional Sequence Options



English 9

Course No.H1010RY

Required: NCAA

Prerequisite: none

Year-Long

1 credit

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.

Honors English 9

Course No.H1011HY

Required: NCAA

Prerequisite: English 8

Year-Long

1 credit

This course will engage students in analytical reading and writing, close reading, discussion, and research. The course will focus on pieces of literature that requires close reading and contextual understanding. Students will understand the importance of small decisions made by authors that significantly enhance pieces of literature. Literature study will center around non-fiction essays, short stories, novels, and poetry. Students will learn how to engage in Socratic discussion while learning to write analytically about literature. Students will produce, analyze, and evaluate a variety of media and extend vocabulary through study. Note that oral presentation and discussion are a coursework requirement.

English 10			Course No.H1022RY
Required: NCAA	Prerequisite: English 1	Year-Long	1 credit
In this course 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.			

Honors English 10			Course No.H1022HSY
Required: NCAA	Prerequisite: English 1 Recommendation: Honors English 1	Year-Long	1 credit
This course will engage students to think deeply and richly about both fiction and nonfiction texts. Skills from English 1 will be further developed as the course focuses on various forms of literary media and writing. The study of different literature forms, such as poetry, novels, short stories, and non-fiction essays, will result in analytical writing and socratic discussion. The course places a heavy emphasis on a variety of writing skills, with a focus on argumentation. The study and purpose of the authors' toolbox will provide students with the vocabulary to begin the art of literature analysis. Because this course is a prep course for AP English courses, emphasis is placed on preparing students for success in the upcoming AP Language and AP Literature courses. Note that oral presentation and discussion are a coursework requirement.			

English 11			Course No.H1033RSY
Required: NCAA	Prerequisite: English 2	Year-Long	1 credit
This course has an American literature emphasis and there will be preparation for the SOL EOC reading and writing tests. Utilizing the recursive process, students will focus on creating multiple persuasive compositions. Reading focus will include vocabulary analysis, literary critique, figurative language study, genre exploration, and the connections between American culture and history.			

AP English Language and Composition			Course No.H1051BY
Elective: DE; NCAA	Prerequisite: English 2 and Grade of B or higher in previous English course and English teacher consultation	Year-Long	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 Modern Language Association (MLA) format and a summer reading assignment of a minimum of three literary and non-fiction works are requirements.</p> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of each semester. Students who wish to take this course as a dual enrollment course can earn six college credits through Lord Fairfax Community College (LFCC ENG 111 & 112). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

English 12		Course No.H1044RY	
Required: NCAA	Prerequisite: English 3 or AP English Language and Composition	Year-Long	1 credit
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.			

AP English Literature and Composition		Course No.H1052BY	
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 consultation.	Year-Long	1 credit
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.			
<i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn three college credits through Lord Fairfax Community College (LFCC ENG 243). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits</i>			

Theatre I: Speech and Drama		Course No.H1070EY	
Elective: Grades 9-12	Prerequisite: Successful Audition	Year-Long	1 credit
This course 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.			

Improvisation		Course No.H1060ES	
Elective: Grades 10-12	Prerequisite: Successful Audition	Year-Long	1 credit
This course will teach techniques needed to build a scene on stage, foster team-building spontaneity, and teach the basic rule of Improvisation. 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.			

Forensics: Speech Events		Course No.H1081ES	
Elective: Grades 9-12	Prerequisite: English 2 or Audition for 9 th grade	Year-Long	1 credit
This course is for students who have completed English 2, are creative and articulate, and are interested in competing as a part of the 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 Modern Language Association (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.			

Forensics: Debate Events			Course No.H1082ES	
Elective: Grades 10-12	Prerequisite: none		Year-Long	1 credit
This course 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.				

Creative Writing & Miscellanea		Course No.H1090ES	
Elective: Grades 10-12; DE; NCAA	Prerequisite: Dual Enroll in AP English Language and Composition (ENG. 111 and 112)	Year-Long	1 credit
This course 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. Students must submit an application with a writing sample and recommendation from a previous English teacher. Students will also create and publish the literary/art magazine Miscellanea.			
<i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn three college credits through Lord Fairfax Community College (LFCC 211). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits</i>			

ENGLISH LEARNERS

The EL Program is designed for students entering John Handley High School who are still acquiring English as a native speaker of another language. Students who arrive at John Handley High School as new transfer students with a language other than English recorded on their Home Language Survey will be screened using the WIDA MODEL Screening test. This test will provide scores for listening, speaking, reading, and writing, and it will give the student an overall English proficiency level which helps to determine placement. The EL Program offers sheltered classes for students to work on developing English language skills and fluency as well as content area skills. The program also offers co-taught support classes in several content areas.

English as a Second Language 1 Course No.H1003LS

Elective	Co-enrolled with English as a Second Language 2	Semester	1 credit
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This course is designed to provide an intensive introduction to English for Newcomer English Learners with an overall proficiency level 1, based on the WIDA ACCESS test, or the WIDA MODEL Screener. Students will take English as a Second Language 1 and English as a Second Language 2 during their first semester in the U.S. The goals of the additional block of English as a Second Language will be for these newcomer students to develop confidence with English Oral language in the social and instructional areas, otherwise known as survival English. This course will meet every day on the A/B schedule in a semester.

****Students will receive an elective credit in the area of World Language for this class**

English as a Second Language 2 Course No.H1006LS

Elective		Semester	1 credit
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This course is designed to provide instruction for English Learners with an overall proficiency of a level 1 or 2, based on the WIDA ACCESS test or WIDA MODEL Screener. Students will develop English vocabulary in both social/instructional and academic language discourse. This course will meet every day on the A/B schedule in a semester.

****Students will receive an elective credit in the area of World Language for this class**

English as a Second Language 3 Course No.H1007LS

Elective		Semester	1 credit
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This course is designed to provide instruction for English Learners to enter content classes. Students will develop English vocabulary with a focus on academic language. The goals of this course will be an introduction to academic language in English listening, speaking, reading, and writing which are needed for success in high school coursework. This course will meet every day on the A/B schedule in a semester.

****Students will receive an elective credit in the area of World Language for this class**

Transitional English for ELs (9/10) Course No.H1004LS

Elective	Prerequisite: none	Semester	1 credit
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This course will provide a transition to English 9 for English 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. This course will meet every day on the A/B schedule in a semester.

****Students will receive an English credit for this class**

Transitional English for ELs (11/12)			Course No.H1008LS
Elective	Prerequisite: none	Semester	1 credit
<p>This course will provide a transition to English 9 for English 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. This course will meet every day on the A/B schedule in a semester.</p> <p>**Students will receive an English credit for this class</p>			

English 9 for ELs			Course No.H1005LS
Elective: NCAA	Prerequisite: Transitional English for ELs	Semester	1 credit
<p>This course runs in sequence following EL Language 2 and provides English 1 credit. This course will only be offered in the spring, and the required prerequisite is EL Language 2. EL English 1 is for students who are learning the English Language and require English language acquisition support to understand the content. The English 1 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 emphasized. Writing includes note taking, completing standardized forms, understanding instructions, grammar, mechanics and usage as they apply 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 project.</p> <p>**Students will receive an English credit for this class</p>			

EL Literacy Skills			Course No.
Elective	Prerequisite: none	Year-Long	1 credit
<p>This course is intended for eligible English Learners to support their acquisition of English. The goal of the course is to increase reading levels, and increase language acquisition with a focus on the overall literacy language domains (reading and writing). Comprehension, decoding, and writing strategies will be supported to better enable students for academic success with high school course work.</p> <p>**Students will receive an elective credit for this class</p>			

EL Integrated Science			Course No.H3000LS
Elective	Prerequisite: none	Semester	1 credit
<p>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. This course will meet every day on the A/B schedule in a semester.</p> <p>**Students will receive an elective credit for this class.</p>			

Biology for ELs			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 fully immerse themselves in the vocabulary and concepts. 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 through the course. This course is designed to support English Learners who are at an overall level 2 or 3 on the WIDA ACCESS test. Students will take the EOC Biology SOL at the end of the school year. This course will meet every day on the A/B schedule.</p> <p>**Students will receive an elective credit (part 1) <i>and</i> a science (part 2) credit for this class</p> <p>** Students with an IEP or 504 will receive 2 science credits for the successful completion of this class</p>			

Algebra 1 for ELs (Part 1 and Part 2)			Course No. H2011LS, H2012LS
Elective	Prerequisite: 8th grade math or EL Algebra Readiness	Year-Long	2 credits
<p>This course is for students who are still learning the English language and require native language support or EL supports to understand the required mathematical concepts. Students will use algebra as a tool for representing and solving a variety of practical problems. Content will involve making connections between Algebra, arithmetic, geometry, as well as probability and statistics in order to attach meaning to abstract concepts. Problem-solving skills will be emphasized. The use of technology and other EL support methods will be implemented to enhance student learning. This course will meet every day on the A/B schedule.</p> <p>Students will take the EOC Algebra I SOL at the end of the school year.</p> <p>**Students will receive an elective credit (part 1) <i>and</i> a math credit (part 2) for this class</p> <p>** Students with an IEP or 504 will receive 2 math credits for the successful completion of this class</p>			

EL Algebra Readiness			Course No.H2002LY
Elective	Prerequisite: none	Year-Long	2 Credits
<p>This course is for English Learners that are new to English or 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 that will help students build skills essential to comprehending higher level math classes. Concrete and collaborative learning experiences using technology are emphasized throughout the course. Placement will be based upon student request, teacher recommendations, and previous math/WIDA assessments. This course will meet every day on the A/B schedule.</p> <p>**Students will receive 2 elective credits for this class</p>			

EL Strategies for Success**Course No.H9031LY****Elective****Prerequisite: none****Year-Long****1 credit**

This course is for eligible EL students to help them successfully transition to high school. The course will focus on note taking skills, development of study strategy skills using various genres and text types as well as various writing forms and purposes. The course will also focus on skill development within all four domains of language development (listening, reading, writing, and speaking).

****Students will receive 1 elective credit for this class**

KINESIOLOGY & HEALTH

Kinesiology 9 - Health & PE		Course No.H5010RY	
Required	Prerequisite: none	Year-Long	1 credit
<p>This course will split the learning environment for students to include classroom instruction and gym/field activities. As such, the evaluation for the course will take into account both Health Education and Physical Education components.</p> <p>Topics of study include, but are not limited to, Nutrition, Fitness, CPR, Drugs & Alcohol, and Family Life Education. Students will be able to discuss and implement the elements that contribute to a healthy lifestyle.</p> <p>The objectives of this required course for all students include identifying the five components of physical fitness, recognizing skills/activities that will enhance each component and analyzing former and current physical fitness results. Participation in a variety of sports/movement activities will assist the student in attaining his/her individual fitness goals.</p> <p>Students are required to pass training in emergency first aid, CPR, and the use of AEDs.</p>			

Kinesiology 10 - Drivers Education, Health & PE		Course No.H5020RY	
Required	Prerequisite: none	Year-Long	1 credit
<p>This course will split the learning environment for students to include classroom instruction and gym/field activities. As such, the evaluation for the course will take into account Driver Education, Health Education, and Physical Education components.</p> <p>Classroom Driver Education consists of a minimum of 36 hours of structured learning experiences aimed at developing safe and conscientious drivers. Successful completion of this course will earn the student their DEC-1 Card, which is necessary in the process of obtaining a Driver's License before the age of 18. Completion of a driver education course through private instruction is certainly allowed, but does not exempt the student from any of the school course objectives. The Health component for Kinesiology 10 will include units in Family Life Education and Mental Health.</p> <p>The objectives of this required course for all students include identifying and explaining the five components of physical fitness, recognizing skills/activities that will enhance each component and analyzing former and current physical fitness results. The objectives of this required course for all students are identifying and explaining the five components of physical fitness, assessing personal fitness, and developing and implementing a plan for maintaining and improving personal fitness. After students have completed this course, they will have the knowledge and skills to develop a fitness plan for the changing stages of their lives.</p>			

Advanced Kinesiology-Team Sports		Course No. H5031EY	
Elective: Grades 10-12*	Prerequisite: Successful completion of Kinesiology 9 and prior approval	Year-Long	1 credit
<p>This course is for students that have a basic understanding of team concepts, and a desire to play hard in a competitive environment. Students will focus on rules of play, strategies, and skill application through varied team games. Students will participate regularly in health-enhancing physical activities that contribute to personal enjoyment and the attainment and maintenance of personal physical fitness goals. Students will accept responsibility for taking a leadership role as well as demonstrate the ability to follow in order to accomplish group goals.</p> <p>Within the Advanced Kinesiology-Team Sports course, several levels are obtainable for credit. While taught together for numbers purposes, each level places different demands and new challenges on the students.</p> <p>*This course may be repeated for additional credits with no more than one per year.</p>			

Advanced Kinesiology-Weight Training			Course No. H5041EY
Elective: Grades 10-12	Prerequisite: Successful completion of Kinesiology 9 and prior approval	Year-Long	1 credit
<p>In this course students will follow a structured fitness and resistance training program with the goal of personal improvement in several areas, including but not limited to, strength, strength endurance, range of motion, speed, BMI, core integrity, and balance. The class will include instruction in fitness/resistance training concepts and the application of those elements into an effectively designed workout program. Proper technique and safety will be stressed. The principles of overload and progression will drive the workout and students will need to be prepared to push themselves throughout the course to realize the benefits of the program.</p>			

MARKETING

Marketing		Course No.H6231EY	
Elective: Grades 10-12	Prerequisite: none	Year-Long	1 credit
<p>In this course, 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.H6232VY	
Elective: Grades 11-12	Prerequisite: Marketing	Year-Long	1 credit
<p>In this course 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. Distributive Education Clubs of America (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>			

Entrepreneurship		Course No.H6260EY	
Elective: Grades 10-12	Prerequisite: none	Year-Long	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>			

Sports Entertainment Marketing		Course No. H6250EY	
Elective: Grades 10-12	Recommended: Principles of Business and Marketing or Marketing	Year-Long	1 credit
<p>This 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.H9130EY****Elective: Grades 11-12****Co-requisite: Enrollment in Marketing,
Advanced Marketing or Sports and
Entertainment Marketing****Year-Long****1 credit**

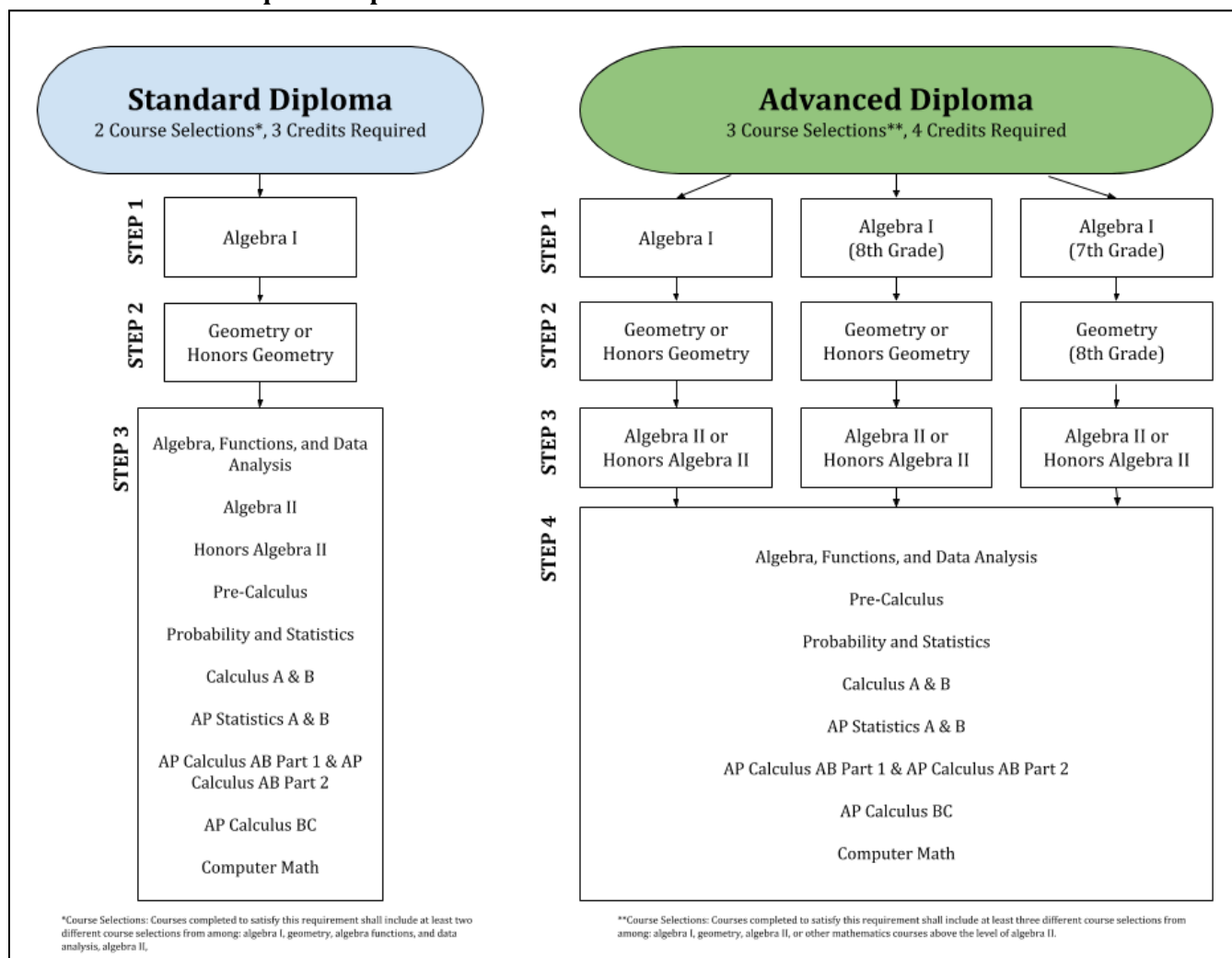
This course is a career preparation work-based learning method that combines Career & Technical Education classroom instruction with paid employment that is directly related to the student's plan of study. The school and the employer plan, coordinate, and supervise the instruction and employment so that 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 280 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.

Principles of Business and Marketing**Course No. H6020EY****Elective: Grades 9-12****Prerequisite: None****Year-Long****1 credit**

In the course 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.

MATHEMATICS

Math Instructional Sequence Options



Algebra I

Course No.H2010RY

Required: NCAA

Prerequisite: none

Year-Long

1 credit

This course is the introductory academic mathematics course at Handley. Students will use algebra as a tool for representing and solving a variety of practical problems. Content will involve making connections between arithmetic reasoning, algebraic expressions, algebraic equations, and coordinate geometry 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 also offered at the middle school.*

Algebra I: Part 1 and Part 2		Course No. H2011RS, H2012RS	
Required: NCAA	Prerequisite: none	Year-Long	credit
<p>This course is a full-year, two credit, daily Algebra course. It supports and promotes student success in mathematics coursework necessary to fulfill graduation requirements. While strengthening prerequisite skills, algebraic concepts are solidified through modeling and the use of manipulatives, graphing calculators, and computer software where appropriate. A concentration on improving problem solving and communication in mathematics builds student confidence. <i>This class will meet every day on the A/B schedule.</i></p> <p>(*)This course is offered for 1 elective credit and 1 mathematics credit. Students with an IEP or 504 with credit accommodations may enroll in Algebra I Part 1 and Algebra I Part 2 and receive 2 mathematics credits.</p>			

Algebra I: Part 1		Course No. H2011RY	
Required: NCAA	Prerequisite: none	Year-Long	1 credit
<p>This course supports and promotes student success in mathematics coursework necessary to fulfill graduation requirements. While strengthening prerequisite skills in the areas of operations with whole numbers, fractions, decimals, percentages, integers, and rational numbers, algebraic concepts are solidified through modeling and the use of manipulatives, graphing calculators, and computer software where appropriate. A concentration on improving problem solving and communication in mathematics builds student confidence.</p> <p>Students may earn one elective credit for the Standard Diploma by successfully completing Algebra I, Part 1. Students with an IEP or 504 with credit accommodations may enroll in Algebra I Part 1 and Algebra I Part 2 and receive 2 mathematics credits.</p>			

Algebra I: Part 2		Course No. H2012RY	
Required: NCAA	Prerequisite: Algebra I: Part 1	Year-Long	1 credit
<p>This course supports and promotes student success in mathematics coursework necessary to fulfill graduation requirements. The study of linear and quadratic equations, linear inequalities, systems of equations, and functions inherent in Algebra are emphasized in the course. Graphing calculators and other emerging technologies are used to facilitate problem solving, data analysis, and transformational graphing. Students will take the Algebra I SOL test.</p> <p>Students may earn one math credit for the Standard Diploma by successfully completing Algebra I, Part 2. Students with an IEP or 504 with credit accommodations may enroll in Algebra I Part 1 and Algebra I Part 2 and receive 2 mathematics credits.</p>			

Geometry		Course No. H2020RY	
Required: NCAA	Prerequisite: none	Year-Long	1 credit
<p>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 be used to enhance student learning. <i>This course is also offered at the middle school.</i></p>			

Honors Geometry		Course No.H2020HY	
Required: NCAA	Prerequisite: Algebra I	Year-Long	1 credit
<p>This course focuses on helping students discover and construct Theorems on their own, building a deeper and more rigorous understanding of the material. Topics will include deriving properties of geometric figures, trigonometric relationships, and the use of reasoning to justify conclusions. Methods of justification will include inductive and deductive reasoning, proofs, algebraic methods, and verbal arguments. This course includes an emphasis on two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. Applications and many problem-solving techniques will be used. The practical use of technology will enhance student learning.</p>			

Algebra, Functions and Data Analysis		Course No.H2010EY	
Elective: NCAA	Prerequisite: Algebra I or Geometry	Year-Long	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		Course No. H2030RY	
Elective: NCAA	Prerequisite: Algebra I	Year-Long	1 credit
<p>This course will examine advanced algebraic concepts 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. Practical use of technology will enhance student learning.</p>			

Honors Algebra II		Course No.H2030HY	
Elective: NCAA	Prerequisite: Algebra I	Year-Long	1 credit
<p>This course teaches 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>			

Pre-Calculus		Course No. H2044DY	
Elective: DE; NCAA	Prerequisite: Algebra II	Year-Long	1 credit
<p>This course teaches students 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 mathematical limits and their applications.</p> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of each semester. Students who wish to take this course as a dual enrollment course can earn six college credits through Lord Fairfax Community College (LFCC MTH 161 and 162). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

Probability and Statistics			Course No. H2074EY
Elective: NCAA	Prerequisite: Algebra II	Year-Long	1 credit
<p>This course presents basic concepts and techniques for collecting and analyzing data, drawing conclusions, and making predictions. Students will use probability and statistics in real-world application 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.H2055DY
Elective: DE; NCAA	Prerequisite: Pre-Calculus	Year-Long	1 credit
<p>This course covers mathematical 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> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of each semester. Students who wish to take this course as a dual enrollment course can earn six college credits through Lord Fairfax Community College (LFCC MTH 261 & 262). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

AP Statistics A & B			Course No.H2070BY
Elective: DE; NCAA	Prerequisite: Pre-Calculus or Probability and Statistics	Year-Long	1 credit
<p>This course 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> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of each semester. Students who wish to take this course as a dual enrollment course can earn six college credits through Lord Fairfax Community College (LFCC MTH 245 & 246). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

AP Calculus AB			Course No H2051BY
Elective: DE; NCAA	Prerequisite: Pre-Calculus	Year-Long	1 credit
<p>This course will begin with an in depth study of limits of all function types. Derivatives and their applications will then be studied including analyzing graphs using the first and second derivatives and an extensive analysis of the position, velocity, and acceleration functions. The first semester will end with an introduction to integration and the definite integral.</p> <p>The second semester of the course picks up with a review of integration techniques and continues with applications of the definite integral including area of volumes of solids. A study of first order separable differential equations follows along with real-life applications of exponential and logarithmic growth functions.</p> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn three college credits through Lord Fairfax Community College (LFCC MTH 263). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

AP Calculus BC**Course No.H2053BY****Elective: DE; NCAA****Prerequisite: Pre-Calculus****Year-Long****1 credit**

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 topics. It will continue with the study of parametric, vector valued and polar functions, their derivatives and applications. This will be followed by an extensive study of Taylor Polynomials and power series including bounding the approximation of a transcendental function using Lagrange error.

This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn three college credits through Lord Fairfax Community College (LFCC MTH 264). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.

Computer Math**Course No. H2090EY****Elective****Prerequisite: Algebra I****Year-Long****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 Math are assumed to have studied the concepts and skills in Algebra I. Students who successfully complete this course will earn a math credit toward meeting the Virginia mathematics graduation requirement when the student completes a Career and Technical Concentration. Students 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.

MUSIC

Symphonic Band

Course No. H8020EY

Elective	Prerequisite: DMMS Band or Successful Audition	Year-Long	1 credit
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In this course, students 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

** 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. H8000EY

Elective	Prerequisite: DMMS band or Successful Audition	Year-Long	1 credit
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In this course, students 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.

Beginning Guitar

Course No. H8031EY

Elective	Prerequisite: none	Year-Long	1 credit
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This course is 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.

Intermediate Guitar

Course No. H8032EY

Elective	Prerequisite: Beginning Guitar or Successful Audition	Year-Long	1 credit
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In this course, students 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.

Jazz Ensemble and Improvisation			Course No. H8041EY
Elective	Prerequisite: DMMS band, JHHS band/guitar, or Successful Audition	Year-Long	1 credit
In this course, students will learn and practice the fundamentals of music in a jazz ensemble setting. Jazz ensemble instrumentation includes, but is not limited to, piano, electric guitar, drums, electric or acoustic bass guitar, alto, tenor and bari saxophone, trombone and bass trombone, and trumpet. Special attention will be given to tone production, tuning, melody, harmony, form and improvisation as we listen to, practice and create music in an ensemble setting. The jazz ensemble will give performances throughout the year in the Patsy Cline Auditorium and at community events.			

Basic Ukulele			Course No. H8033EY
Elective	Prerequisite: None	Year-Long	1 credit
In this course, the basics of playing the ukulele are presented in an ensemble-based, blended learning class format. Ukulele is a small 4 stringed guitar of Hawaiian origin. This includes group music learning, solo repertoire, and multi-part arrangements of original and traditional songs. Students will learn music fundamentals, music theory, guitar tablature and standard notation. Participation in concerts is mandatory. School ukuleles are available though having your own instrument is highly recommended.			

Treble Ensemble			Course No. H8040EY
Elective: Grades 9-12	Prerequisite: Successful Audition	Year-Long	1 credit
This course is an ensemble of a large ensemble of Treble (Soprano/Alto) voices for anyone who wants to continue singing or learn to sing. The ensemble is designed to offer the opportunity to develop skills and perform 2-4 part music. Vocal development and musicianship in the field of choral literature are stressed. Performance in all concerts presented by this ensemble is required.			

Advanced Treble Ensemble			Course No. H8042VY
Elective: Grades 9-12	Prerequisite: Successful audition and one year experience in the choral program at Handley, or advanced skills as determined by the director	Year-Long	1 credit
This course is an ensemble of advanced treble 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, assessments, and competitions. Vocal development and musicianship in the field of choral literature are stressed. Performance in all concerts presented by this ensemble is required.			

Concert Choir			Course No. H8050EY
Elective: Grades 9-12	Prerequisite: Successful Audition	Year-Long	1 credit
In this course, the 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, assessments, and competitions. Vocal development and musicianship in the field of choral literature are stressed. Performance in all concerts presented by this ensemble is required.			

Chamber Choir**Course No. H8060EY****Elective: Grades 9-12****Prerequisite: Successful Audition, and one year experience in Treble Ensemble or Concert Choir, or advanced skills as determined by the director****Year-Long****1 credit**

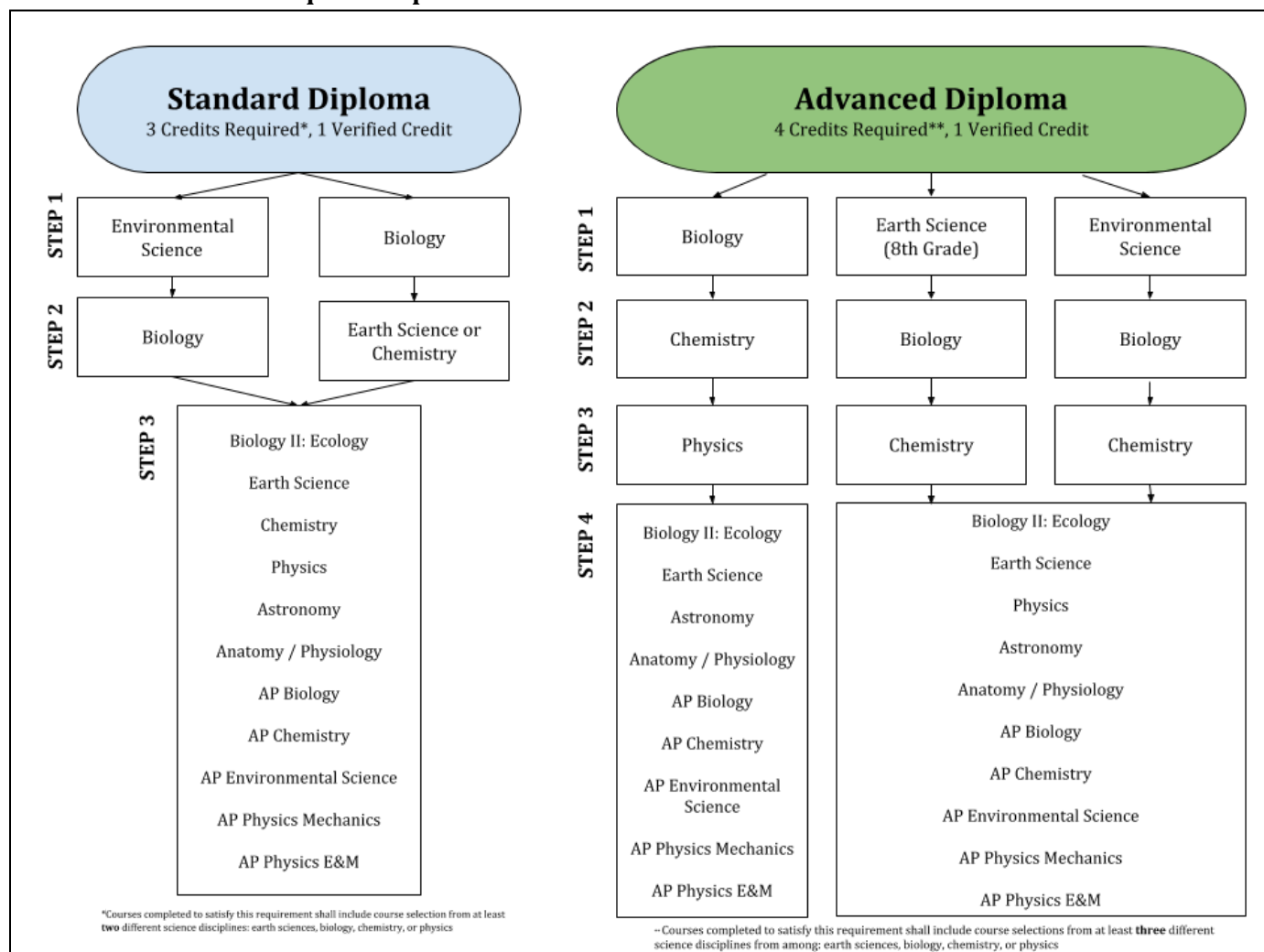
This course is a select small ensemble of advanced singers. The ensemble is a performance-oriented group designed to offer the talented singer the opportunity to perform challenging music. Music will be performed from a variety of genres with special emphasis on the correct performance technique for each period. The students will perform throughout the community and participate in district and state choruses, assessments, and competitions. Vocal development and musicianship in the field of choral literature are stressed. Performance in all concerts presented by this ensemble is required.

Gaveliers**Course No. H8051EY****Elective: Grades 9-12****Prerequisite: None****Year-Long****1 credit**

This course is a large ensemble of Tenor/Bass voices for anyone who wants to continue singing or learn to sing. The ensemble is designed to offer the opportunity to develop skills and perform 2-4 part music. Vocal development and musicianship in the field of choral literature are stressed. Performance in all concerts presented by this ensemble is required.

SCIENCE

Science Instructional Sequence Options



Environmental Science

Course No.H3060EY

Elective: NCAA

Prerequisite: Principles of Science

Year-Long

1 credit

This course is an introductory course designed to explore the physical world. This course will show the connection between science, technology, and society. Students will apply prior scientific knowledge to current environmental issues and will become a better-informed citizen and decision-maker. In this class there will be an emphasis on hands-on activities and laboratory exercises that promote problem solving, refine laboratory procedure, and reinforce reading, writing, and math skills.

Earth Science

Course No.H3011EY

Elective: NCAA

Prerequisite: none

Year-Long

1 credit

This course 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. 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.*

Biology		Course No.H3021EY	
Required: NCAA	Prerequisite: none	Year-Long	1 credit
<p>This course 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.H3021HY	
Required: NCAA	Prerequisite: none	Year-Long	1 credit
<p>This course 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. This course includes an inquiry-based independent research project.</p>			

Biology II: Ecology		Course No.H3022VY	
Elective: NCAA	Prerequisite: Biology	Year-Long	1 credit
<p>In this course, students will build upon knowledge and skills from Biology to explore the ecological levels of individual, population, species, community, and ecosystem. Topics include: Historical Foundations; Adaptations to the Environment; Population, Community, & Global Ecology. Students will participate in laboratory and field studies as well as online learning experiences. This course does not have an associated SOL test.</p>			

AP Biology		Course No.H3021BY	
Elective: DE; NCAA	Prerequisite: Biology and Chemistry	Year-Long	2 credits
<p>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> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of each semester. Students who wish to take this course as a dual enrollment course can earn eight college credits through Lord Fairfax Community College (LFCC BIO 101 & 102). Students must satisfy enrollment criteria, complete labs, and pay a reduced college tuition rate to be eligible for college credits. To meet lab requirements associated with this course, students will attend on A & B days for the entire school year.</i></p>			

Chemistry		Course No.H3030EY	
Elective: NCAA	Prerequisite: Algebra 1	Year-Long	1 credit
<p>This course includes 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			Course No.H3031BY
Elective: DE; NCAA	Prerequisite: Chemistry and enrolled in/completed Pre-calculus	Year-Long	2 credits
<p>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> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of each semester. Students who wish to take this course as a dual enrollment course can earn eight college credits through Lord Fairfax Community College (LFCC CHM 111 & 112). Students must satisfy enrollment criteria, complete labs, and pay a reduced college tuition rate to be eligible for college credits. To meet lab requirements associated with this course, students will attend on A & B days for the entire school year.</i></p>			

Physics			Course No.H3040EY
Elective: NCAA	Prerequisite: Algebra II	Year-Long	1 credit
<p>This course is a 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 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)			Course No.H3041AY
Elective: Grades 11-12; DE; NCAA	Co-requisite: Calculus or AP Calculus	Year-Long	1 credit
<p>This course 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.</p> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn four college credits through Lord Fairfax Community College (LFCC PHY 241). Students must satisfy enrollment criteria, complete labs, and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

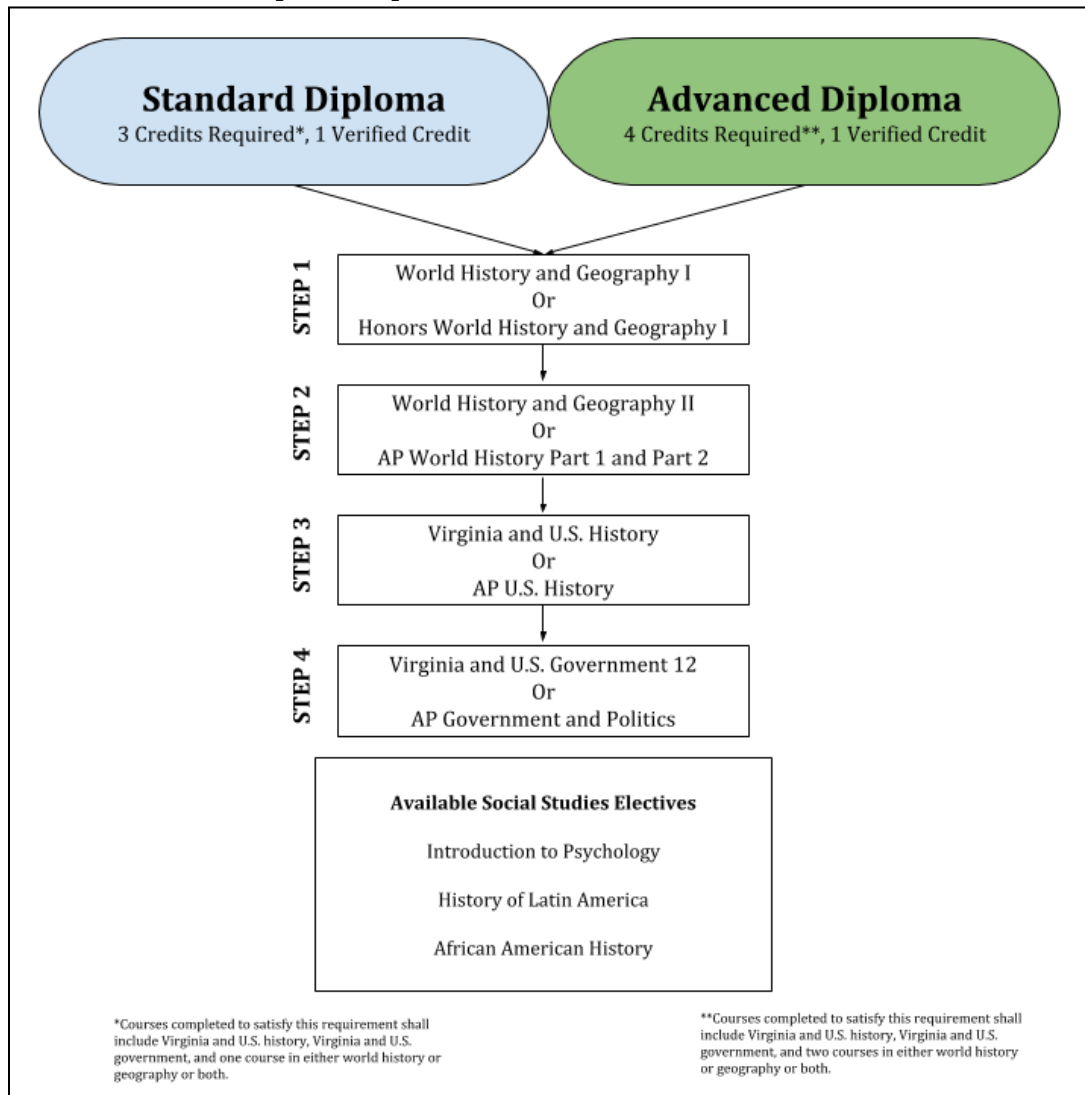
AP Physics C (Electricity and Magnetism)			Course No.H3042AY
Elective: Grades 11-12; DE; NCAA	Co-requisite: Calculus or AP Calculus	Year-Long	1 credit
<p>This course serves as the foundation for students planning on majoring in physics, science, engineering or mathematics in college. The course is structured 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 law, Electromagnetism, and Maxwell's Equations.</p> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn four college credits through Lord Fairfax Community College (LFCC PHY 242). Students must satisfy enrollment criteria, complete labs, and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

AP Environmental Science			Course No.H3060AY
Elective: NCAA	Prerequisite: Biology and Chemistry	Year-Long	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.</p>			

Astronomy			Course No.H3070EY
Elective	Prerequisite: Earth Science	Year-Long	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 exploration, the solar system, stars, universe, and cosmology. Exploring the sky section includes origins of modern astronomy, gravity, light, and telescopes. The solar system section includes the origin of the solar system, planets, moons, asteroids, meteorites, and comets. Star section includes stellar evolution, death of stars, interstellar medium, neutron stars, and black holes. The universe section includes galaxies, supermassive black holes, quasars, dark matter. The cosmology section includes the expanse of the universe, Big Bang Theory, dark energy, and the future of the universe. Students will be expected to research, write detailed scientific papers, and present on astronomical topics.</p>			

SOCIAL STUDIES

Social Studies Instructional Sequence Options



World History and Geography 1

Course No.H4011EY

Required: NCAA

Prerequisite: none

Year-Long

1 credit

This course is designed to introduce students to the origin of Western and non-Western Civilizations from prehistory through approximately 1550 CE (Common Era). 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, the Post-Classical World, and Regional Interactions in the late Medieval and Early Modern World. Stressed throughout the course are such critical thinking skills as analysis and interpretation.

Honors World History and Geography 1			Course No.H4011HY
Required: NCAA	Prerequisite: Civics and Economics	Year-Long	1 credit
<p>This 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, the Post-Classical World, and Regional Interactions in the late Medieval and Early Modern World. 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 students who wish to more deeply explore the ancient, classical, and medieval worlds.</p>			

World History and Geography 2			Course No.H4022EY
Elective: NCAA	Prerequisite: World History and Geography 1	Year-Long	1 credit
<p>This course is designed to challenge 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.</p>			

AP World History Part 1/AP World History Part 2			Course No.H4010BY
Elective: DE; NCAA	Prerequisite: World History I	Year-Long	1 credit
<p>This course covers the World History curriculum as it is described by the College Board. It focuses on the years 1500 CE (Common Era) to the present. 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.</p> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn three college credits through Lord Fairfax Community College (LFCC HIS 112). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

Virginia and U.S. History			Course No.H4030RY
Required: NCAA	Prerequisite: World History I or II	Year-Long	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 opportunities 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.H4030BY	
Required: DE; NCAA	Prerequisite: World History I or II	Year-Long	1 credit
<p>This course 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> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of each semester. Students who wish to take this course as a dual enrollment course can earn six college credits through Lord Fairfax Community College (LFCC HIS 121 & 122). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

Virginia & U.S. Government 12		Course No.H4040RY	
Required: NCAA	Prerequisite: Virginia & U.S. History	Year-Long	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>			

AP Government & Politics		Course No.H4050BY	
Required: DE; NCAA	Prerequisite: VA & U.S. History	Year-Long	1 credit
<p>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 the U.S. government, democratic theory, political parties and interest groups, institutions and policy processes of national government, and civil liberties and civil rights.</p> <p>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn three college credits through Lord Fairfax Community College (LFCC HIS 268). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits</p>			

Introduction to Psychology		Course No.H4060EY	
Elective: Grades 11-12; NCAA	Prerequisite: none	Year-Long	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>			

History of Latin America			Course No.H4070EY
Elective	Recommended: World History I and World History II	Year-Long	1 credit
<p>This course explores the social, cultural, political, environmental, and economic developments of Latin America. The course will discuss the settlement of the region by Amerindians, the rise of Amerindian Empires, arrival and impact of European colonizers, the Latin American Independence movement, post-colonial developments, Neocolonialism, Latin American Nationalism, the Age of Revolution, and Post-Revolutionary Reactions. Borrowing from the AP Themes of History, students will explore Human-Environmental Interaction; Development and Interaction of Cultures; State Building, Expansion and Conflict; Creation, Interaction, and Expansion of Economic Systems; and Development and Transformation of Social Structures. This course will be reading, writing, and research intensive.</p>			

African American History		Course No. H4080EY	
Elective	Recommended: Completion or current enrollment in VA/US History	Year-Long	1 credit
<p>This course is designed to introduce students to the major themes, issues, and topics in African American history from the origins of African kingdoms in the 1500s through today. In this course students will explore people and events from perspectives typically not addressed in traditional curriculums. The course will center on questions such as “what is freedom?” Throughout the course, students will utilize historical thinking skills such as chronological reasons, comparison and contextualization, constructing historical arguments from evidence, and historical analysis and interpretation.</p>			

TECHNOLOGY/TRADE AND INDUSTRIAL EDUCATION

Industrial Maintenance I		Course No H6151ES	
Elective: Grade 12; DE	Prerequisite: Acceptance into the Trades Academy	Semester	2 credit
<p>In this course, 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 technicians repair and maintain commercial or industrial equipment in buildings. This course is held off-site at LFCC.</p> <p><i>This course may be Dual Enrolled with Lord Fairfax Community College.</i></p>			

Industrial Maintenance II		Course No H6152ES	
Elective: Grade 12; DE	Prerequisite: Acceptance into the Trades Academy	Semester	2 credit
<p>In this course, 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. Industrial maintenance technicians repair and maintain commercial or industrial equipment in buildings. This course is held off-site at LFCC.</p> <p><i>This course may be Dual Enrolled with Lord Fairfax Community College.</i></p>			

Imaging Technology		Course No.H6100EY	
Elective: Grades 10-12	Prerequisite: none	Year-Long	1 credit
<p>This course 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.</p>			

Video & Media Technology		Course No.H6270EY	
Elective: Grades 10-12	Prerequisite: Application & Instructor Approval	Year-Long	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>			

WORLD LANGUAGES

German I		Course No.H7031EY	
Elective: NCAA	Prerequisite: none	Year-Long	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.H7032EY	
Elective: NCAA	Prerequisite: German I	Year-Long	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.H7033EY	
Elective: NCAA	Prerequisite: German II	Year-Long	1 credit
In this course, students review, refine, and expand their knowledge of German vocabulary and grammar, through a focus on the daily life, interests, and concerns of teenagers in German-speaking countries. 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.H7034DY	
Elective: NCAA	Prerequisite: German III	Year-Long	1 credit
In this course, German students 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.H7035AY	
Elective: NCAA	Prerequisite: German IV	Year-Long	1 credit
In this course, German students 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.H7021EY	
Elective: NCAA	Prerequisite: none	Year-Long	1 credit
This course is designed with an emphasis in communication in speaking, reading, writing, and listening activities. Speaking and writing is an interactive process whereas reading and listening is a receptive process. Students will learn in a real life process through partner exchange and online writing to discover French culture and language from across the globe. French and English are the languages used in the high school classroom.			

French II			Course No.H7022EY
Elective: NCAA	Prerequisite: French I	Year-Long	1 credit
The course builds upon the skills attained in French I. Students will continue to expand their communication skills with presentational opportunities, writing dialogues, speaking with partners in a group context to learn about France and African Francophone culture, reading novice to intermediate stories, and interactive exchanges.			

French III			Course No.H7023EY
Elective: NCAA	Prerequisite: French II	Year-Long	1 credit
This course emphasizes more advanced comprehension in Reading and Speaking, Writing and Listening skills. Investigating French History and intermediate level stories will expand student comprehension in the target language. Daily speaking, learning poetry, project-based learning assignments are examples of practice for cultural understanding. Listening exercises online and podcasts are a few of the tools used to facilitate student's ability to communicate in French.			

French IV			Course No.H7024EY
Elective: NCAA	Prerequisite: French III	Year-Long	1 credit
This course is taught primarily in French in order for student's ability to think and communicate in the target language effectively. Going from the intermediate to advanced level of comprehension is the focus through speaking in dialogue daily, writing and reviewing grammar and sentence structures, and cultural research within the Francophone world. Students are expected to read about target issues and participate in interactive exchanges about contemporary issues.			

AP French Language and Culture			Course No.H7025AY
Elective: NCAA	Prerequisite: French IV	Year-Long	1 credit
This course is taught completely in French in preparation for college level training and AP testing in May of the academic year. Students build their speaking and listening comprehension as well as deepen their skills in research and writing using French in the contemporary world. There is a writing emphasis using email and essay writing. Speaking in dialogue format and comprehension from audio and literary writings are also methods utilized throughout the course.			

Latin I			Course No.H7041SY
Elective: NCAA	Prerequisite: none	Year-Long	1 credit
The course concentrates on the students' ability to comprehend Latin, and includes a thorough study of nouns and verbs. 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 and compose Latin stories.			

Latin II			Course No.H7042SY
Elective: NCAA	Prerequisite: Latin I	Year-Long	1 credit
The course will continue to build Latin grammar, vocabulary and English derivatives, as well as glimpsing different aspects of Roman life. A year-long study of mythology and history exposes students to the influence of classical myths and ancient Roman culture on art, literature and the English language.			

Latin III			Course No.H7043SY	
Elective: NCAA	Prerequisite: Latin II	Year-Long	1 credit	
This course, after an intensive review of Latin grammar, 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 ancient Roman authors, along with an in-depth study of Roman history from the fall of Troy through the fall of the Empire over 1500 years. Students will be exposed 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.				

AP Latin			Course No.H7044AY
Elective: NCAA	Prerequisite: Latin III	Year-Long	1 credit
In this course, 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.			

Spanish I			Course No. H7011EY	
Elective: NCAA	Prerequisite: none		Year-Long	1 credit
In this course, students will successfully begin their language acquisition process through consistent and constant exposure to Spanish language, comprehensible input. This course will introduce students to high frequency Spanish vocabulary in order to begin communication about a broad range of authentic topics. Language and culture are taught simultaneously, allowing Spanish students the opportunity to develop cultural understanding.				

Spanish II			Course No.H7012EY		
Elective: NCAA		Prerequisite: Spanish I		Year-Long	1 credit
In this course, students will advance in their language acquisition process through consistent and constant exposure to the Spanish language with the use of high frequency Spanish vocabulary. This course continues to explore language and culture simultaneously in order to increase cultural awareness and develop global citizenship.					

Spanish III			Course No.H7013EY	
Elective: NCAA	Prerequisite: Spanish II or Spanish for Fluent Speakers II	Year-Long	1 credit	
In this course, students will refine their Spanish language skills through the continuous use of comprehensible input by being exposed to more advanced grammar and language structures, and authentic reading materials. As in Spanish I and II, culture is an essential part of the curriculum.				

Spanish IV		Course No.H7014EY	
Elective: NCAA	Prerequisite: Spanish III or Spanish for Fluent Speakers III	Year-Long	1 credit
This course is considered a pre-AP course which emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture and to prepare for the AP Spanish Language and Culture course, Spanish IV is taught almost exclusively in Spanish. Spanish IV is approximately equivalent to an upper-intermediate college or university course in Spanish language and culture.			

AP Spanish Language and Culture			Course No.H7015AY
Elective: NCAA	Recommended: Spanish IV or teacher recommendation	Year-Long	1 credit
This course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. This course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.			

Spanish for Fluent Speakers I			Course No.H7001LY
Elective	Prerequisite: Ability to understand Spanish, communicate verbally, and to write simple basic sentences in Spanish.	Year-Long	1 credit
In this course, students will reinforce their comprehension and production of the Spanish language through Comprehensible Input. They will explore culturally relevant issues while developing a sense of cultural pride. This class will be taught exclusively in Spanish.			

Spanish for Fluent Speakers 2			Course No.H7002LY
Elective	Prerequisite: Completion of Spanish for Fluent Speakers II or completion of Spanish I with the ability to understand Spanish, communicate verbally, and to write and read in Spanish.	Year-Long	1 credit
This course continues to explore language and cultural issues through authentic and fictional resources. Students will benefit from further instruction in reading, writing, basic principles of grammar, spelling, sentence structure, punctuation, accents, and paragraph organization. This class will be taught exclusively in Spanish.			

Spanish for Fluent Speakers 3			Course No.H7003LY
Elective	Prerequisite: Ability to comprehend and produce Spanish language fluently and completion of Fluent Speakers II OR Spanish II.	Year-Long	1 credit
In this course, students will refine their Spanish language skills through the continuous use of comprehensible input by being exposed to more advanced grammatical and language structures, and authentic reading materials. As in Spanish I and II, culture is an essential part of the curriculum. This class will be taught exclusively in Spanish.			

Emil & Grace Shihadeh Innovation Center at John Handley High School

Expanding Education to Meet the Workforce Needs of Tomorrow

According to the US Bureau of Labor and Statistics, the labor market is projected to expand by 6 million new jobs over the next 10 years. By 2029 one in four people will be aged 65 and older, leading to a large portion of the workforce exiting the labor market creating opportunities for those starting out on their career pathways.



The new Emil and Grace Shihadeh Innovation Center will prepare Winchester students and community members for the in-demand, skilled workforce of tomorrow. The goal is to ensure that every student is prepared and empowered with marketable skills that lead to full-time, high-paying employment and that every regional industry is fully supplied with dedicated, skilled workers that will sustain and enhance their business model.

A joint venture with Lord Fairfax Community College and local industry partners, the Innovation Center will train and equip youth and adults to meet the demands of the regional job market as well as prepare for global opportunities. Using hands-on learning strategies, students will develop the necessary skills that will lead to marketable certifications. Industry partners will play an active role in the development of the program of study, while also committing to work-based learning opportunities for students. Lord Fairfax Community College will provide instructors and equipment for certification and credit bearing courses. The Innovation Center will be a hub of workforce development for the community, serving both high school students and adults.

The instructional culture at the Innovation Center will be interdisciplinary and organized into industry themes where Career & Technical Education (CTE) teachers, core academic teachers, and students will be working together on authentic, real-world problems. While attending the Innovation Center students will take one CTE course and one core class. Lord Fairfax Workforce Solutions will also partner to increase opportunities. All JHHS students will have an opportunity to have an experience at the Innovation Center and it will also be open to help train adults.

Three academies will be housed at the Innovation Center -- **Advanced Technologies Academy**, **Professional Skills Academy**, and **Health Sciences Academy** -- each offering programs that will equip students with the skills and credentials needed for a career in their respective field.

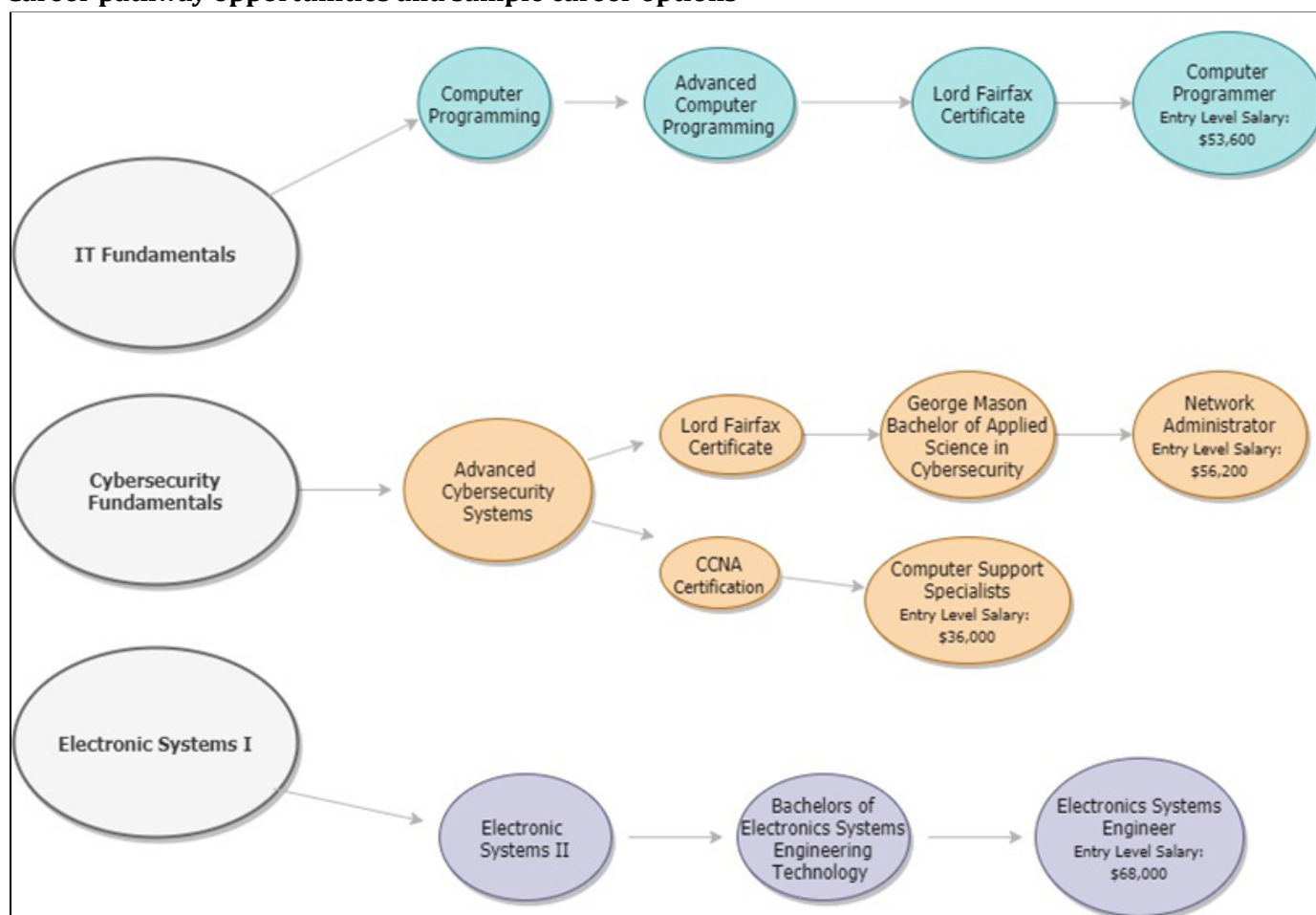
The table below includes CTE courses available at the Innovation Center. Please note that courses may not be available every semester and course offerings will be continually updated.

Advanced Technologies Academy	Professional Skills Academy	Health Science Academy
Cybersecurity Security Fundamentals Cybersecurity Systems Technology (DE) Advanced Cybersecurity Systems Technology (DE) Electronic Systems I Electronic Systems II	Materials & Processes Technology Welding I (DE) Welding II Carpentry I Carpentry II Architecture Drawing & Design Technical Drawing & Design Plumbing (LFCC Workforce) Plumbing II (LFCC Workforce) HVAC I (LFCC Workforce) HVAC II (LFCC Workforce) Electricity I (LFCC Workforce) Electricity II (LFCC Workforce)	Intro to Health and Medical Sciences Emergency Medical Technician I Emergency Medical Technician II Medical Laboratory Technology I Medical Laboratory Technology II (DE) Nurse Aide I Nurse Aide II Patient Care Technician Physical/Occupational Therapy I Physical/Occupational Therapy II Anatomy & Physiology (DE)

Core class offerings are based on availability and VDOE credit requirements. Core subjects will be taught using a blend of personalized learning and project-based learning to enhance academic performance. Students will design their criteria for success and negotiate their time and learning with teachers.

ADVANCED TECHNOLOGIES ACADEMY

Career pathway opportunities and sample career options



Cybersecurity Fundamentals

Course No.H6060EY

Elective: Grades 9-12

Prerequisite: none

Year-Long

1 credit

This course focuses on the evolving and all-pervasive technological environment with an emphasis on securing personal, organizational, and national information. Students will be introduced to the principles of cybersecurity, explore emerging technologies, examine threats and protective measures, and investigate the diverse high-skill, high-wage, and high-demand career opportunities in the field of cybersecurity.

Cybersecurity Technology I

Course No. H60501DY

Elective: Grades 9-12; DE

Recommended: Cybersecurity Fundamentals

Year-Long

1 credit

In this course, 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.

This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of each semester. Students who wish to take this course as a dual enrollment course can earn three college credits through Lord Fairfax Community College (LFCC ITN 107). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.

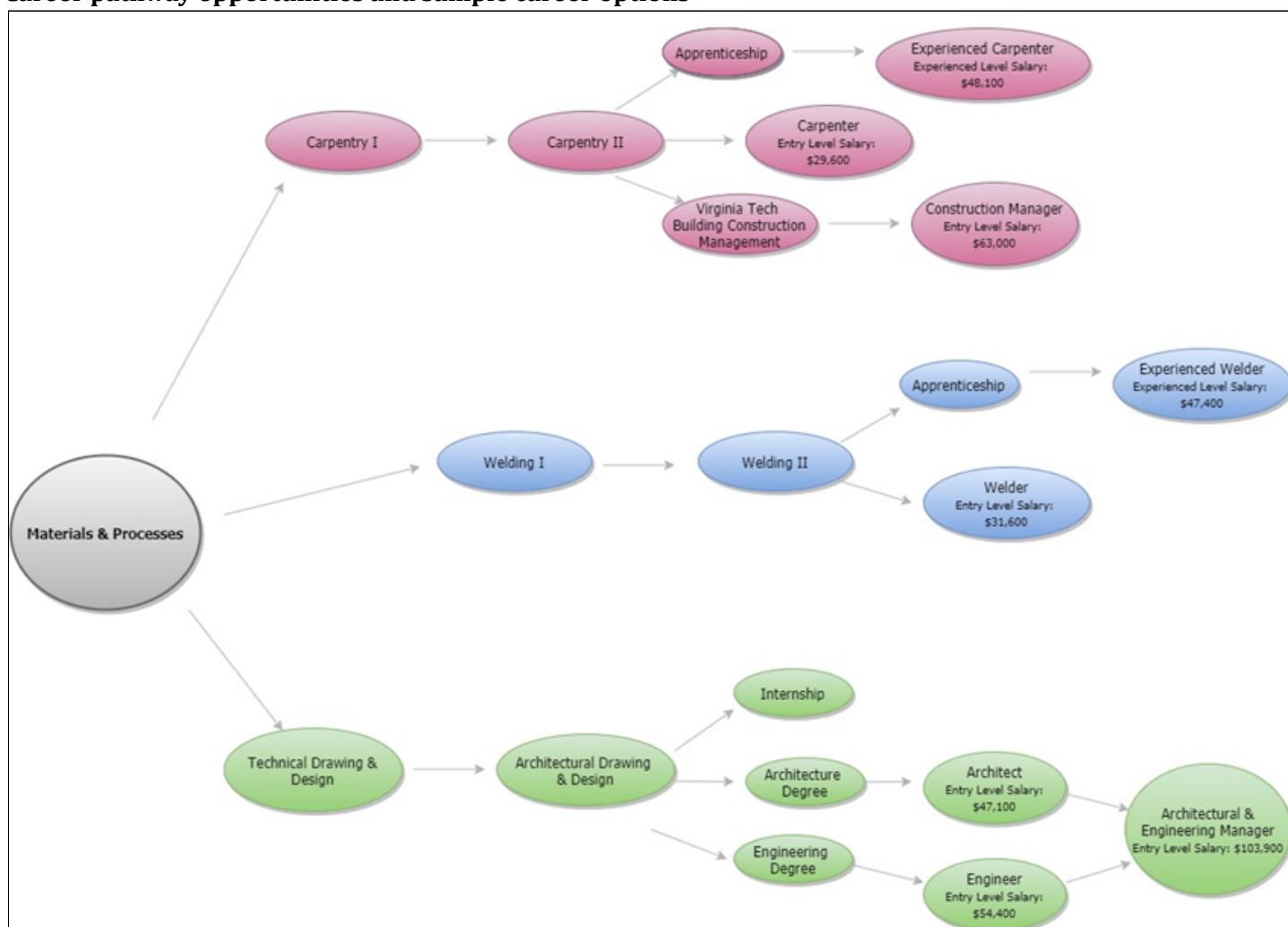
Advanced Cybersecurity Technology II			Course No. H6061DY
Elective: Grades 10-12; DE	Prerequisite: Cybersecurity Technology I	Year-Long	2 credits
<p>In this course, students will gain a basic understanding of emerging technologies including unified communications, mobile, cloud, and virtualization technologies. 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> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of each semester. Students who wish to take this course as a dual enrollment course can earn six college credits through Lord Fairfax Community College (LFCC ITN 101 & 106). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

Electronic Systems I			Course No.H6131EY
Elective: Grades 9-12	Recommended: Tech Drawing	Year-Long	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.H6132EY
Elective: Grades 10-12	Prerequisite: Electronics Systems I	Year-Long	1 credit
<p>In this course, 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>			

PROFESSIONAL SKILLS ACADEMY

Career pathway opportunities and sample career options



Materials and Processes Technology

Course No.H6140EY

Elective: Grades 9-12

Prerequisite: none

Year-Long

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. This course is also offered at the middle school.

Welding I		Course No.H6070DY	
Elective: Grades 9-12; DE	Recommended: Materials and Processes Technology	Year-Long	1 credit
<p>This course is a 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.</p> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn three college credits through Lord Fairfax Community College (LFCC WEL 120). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

Welding II		Course No. H6081EY	
Elective: Grades 9-12	Prerequisite: 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. This course will meet every day on the A/B schedule.</p>			

Carpentry I		Course No.H6030EY	
Elective: Grades 9-12	Recommended: Materials and Processes Technology	Year-Long	1credit
<p>In this 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		Course No.H6041EY	
Elective: Grades 11-12	Prerequisite: Carpentry I	Year-Long	2 credits
<p>This course 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. This course will meet every day on the A/B schedule.</p>			

Technical Drawing and Design

Course No.H6110EY

Elective: Grades 9-12

Prerequisite: none

Year-Long

1 credit

This 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.

Architectural Drawing and Design

Course No H6071DY

Elective: Grades 9-12

Prerequisite: Technical Drawing and Design

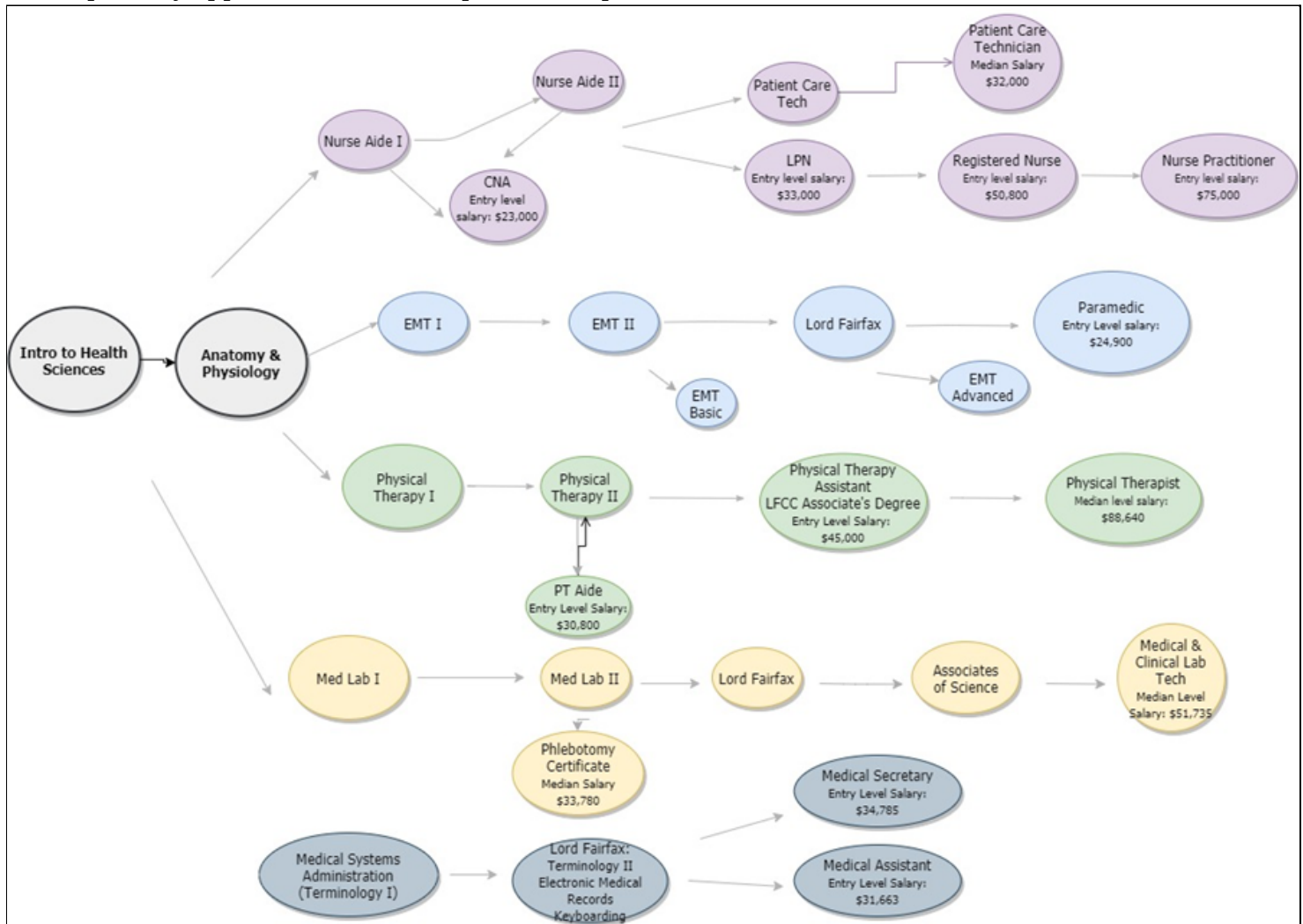
Year-Long

1 credit

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.

HEALTH SCIENCE ACADEMY

Career pathway opportunities and sample career options



Students participating in health science programs will engage in clinical settings (possible examples are the Winchester Medical Center and the Winchester Fire & Rescue Department). As a result, students will be taught how to safely manage situations that deal with actual patients and patient information requiring maturity, confidentiality, and important safety protocols. All of these are skills students will learn through the programs and be able to implement in the live setting.

Students in the Nurse Aide, EMT and Medical Laboratory Technologies, Physical/Occupational Therapy 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.

Introduction To Health & Medical Sciences**Course No.H6170EY****Elective: Grades 9-12****Recommended: Algebra I and Biology****Year-Long****1 credit**

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.

Emergency Medical Technician I**Course No. H6150ES****Elective: Grades 11-12****Prerequisite: Intro to Health Sciences**
*** See Notation****Semester**
(2 blocks)**1 credits**

This course includes tasks from 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.

Note: Students must be at least 16 years old by the first day of the course offering. Students should take Emergency Medical Technician I first-semester and Emergency Medical Technician II second-semester.

**Before enrolling students need to read the responsibility, confidentiality, and accountability statement on Page 75. Students need to read and comply with the course enrollment requirements on Page 75.*

Emergency Medical Technician II**Course No. H6160ES****Elective: Grades 11-12****Prerequisite: Emergency Medical Technician I**
*** See Notation****Semester**
(2 blocks)**1 credit**

This course includes tasks from the National and Virginia Emergency Medical Services (EMS) Educational Standards. Students build on their knowledge and skills for providing basic life support by focusing on the areas of EMS operations, medical emergencies, and management of special patient populations. Supervised field experience that includes at least 10 patient contacts outside of school hours is required. Successful completion of all course requirements and instructor endorsement may lead to eligibility to take the Virginia State Psychomotor Exam and the National Registry of Emergency Medical Technicians (NREMT) cognitive exam. Students must meet the requirements of the Functional Position Description for the Basic Life Support Provider (refer to EMS.TR.14B and 12VAC5-31-1501 in the Code of Virginia). Students must complete a minimum of 85 percent of the didactic and lab aspects of the course, per 12VAC5-31-1501 in the Code of Virginia.

Note: Students must be at least 16 years old by the first day of the course offering. Students should take Emergency Medical Technician I first-semester and Emergency Medical Technician II second-semester.

**Before enrolling students need to read the responsibility, confidentiality, and accountability statement on Page 75. Students need to read and comply with the course enrollment requirements on Page 75.*

Medical Laboratory Technology I

Course No.H6181DY

Elective: Grades 10-12

Recommended: Intro to Health Sciences
*** See Notation**

Year-Long

1 credit

In this course, 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.

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Medical Laboratory Technology II

Course No.H6182DY

Elective: Grades 10-12; DE

Prerequisite: Medical Laboratory Technology I
*** See Notation**

Year-Long

1 credit

In this course, 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.

This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn three college credits through Lord Fairfax Community College (LFCC MDL 101). Students must satisfy enrollment criteria and pay a reduced college tuition rate to be eligible for college credits.

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Nurse Aide I

Course No.H6191ES

Elective: Grades 11-12

Prerequisite: Intro to Health Sciences preferred
*** See Notation**

Semester (2 blocks)

1 credit

This course is offered as an occupational preparation course which 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. Students should take Nurse Aide I first-semester and Nurse Aide II second-semester.

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Nurse Aide II		Course No. H6192ES	
Elective: Grades 11-12	Prerequisite: Nurse Aide I * See Notation	Semester (2 blocks)	1 credit
<p>This course 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. Students should take Nurse Aide I first-semester and Nurse Aide II second-semester.</p> <p><i>*Before enrolling students need to read the responsibility, confidentiality, and accountability statement on Page 75. Students need to read and comply with the course enrollment requirements on Page 75.</i></p>			

Patient Care Technician		Course No. H6193EY	
Elective: Grades 12	Prerequisite: Nurse Aide	Year-Long	1 credit
<p>This course emphasizes the study of nursing occupations as related to the healthcare system. Students study normal growth and development, simple body structure and function, and medical terminology and are introduced to microbes and disease. Upon completion of the course, students will master skills performing ECGs, basic medical, lab and exam procedures, drawing blood, and providing basic patient care. Students will be eligible to take the National Certification exams to become a Certified Phlebotomy Technician, Certified EKG Technician, and Certified Patient Care Technician.</p> <p><i>*Before enrolling students need to read the responsibility, confidentiality, and accountability statement on Page 75. Students need to read and comply with the course enrollment requirements on Page 75.</i></p>			

Physical/Occupational Therapy I		Course No. H6175EY	
Elective: Grades 11-12	Recommended: Intro to Health Sciences and Anatomy and Physiology * See Notation	Year-Long	2 credits
<p>The course is designed to provide an introduction to the professions of physical and occupational therapy. Students explore the principles and practices of therapists in the healthcare industry and participate in clinical observation under the direct supervision of a licensed physical and/or occupational therapist. Clinical skills in the areas of physical therapy and occupational therapy enable students to gain understanding of rehabilitative care, which is practiced throughout the continuum of care and across the life span of individuals. After successful completion of this course, students may seek higher education for specific degrees/licensure in a variety of fields such as physical therapy, occupational therapy, speech therapy, sports medicine, athletic training, chiropractic medicine, biology, or exercise science. This course will meet every day on the A/B schedule.</p> <p><i>*Before enrolling students need to read the responsibility, confidentiality, and accountability statement on Page 75. Students need to read and comply with the course enrollment requirements on Page 75.</i></p>			

Physical/Occupational Therapy II			Course No.H6176EY
Elective: Grades 11-12	Recommended: Intro to Health Sciences and Anatomy and Physiology Required: Physical/Occupational Therapy I * See Notation	Year-Long	2 Credits
<p>The course is designed to provide an introduction to the professions of physical and occupational therapy. Students explore the principles and practices of therapists in the healthcare industry and participate in clinical observation under the direct supervision of a licensed physical and/or occupational therapist. Clinical skills in the areas of physical therapy and occupational therapy enable students to gain understanding of rehabilitative care, which is practiced throughout the continuum of care and across the life span of individuals. After successful completion of this course, students may seek higher education for specific degrees/licensure in a variety of fields such as physical therapy, occupational therapy, speech therapy, sports medicine, athletic training, chiropractic medicine, biology, or exercise science. This course will meet every day on the A/B schedule.</p> <p><i>*Before enrolling students need to read the responsibility, confidentiality, and accountability statement on Page 75. Students need to read and comply with the course enrollment requirements on Page 75.</i></p>			

Anatomy & Physiology			Course No.H3070DY
Grades 10-12; DE; NCAA	Prerequisite: Biology/Honors Biology	Year-Long	1 credits
<p>This course is an introductory course designed for students who have an interest in entering a health-related field. Students will review basic chemical concepts and then progress to detailed investigations of cellular physiology and the anatomy and physiology of human organs and organ systems. Required laboratory applications include the use of real and virtual dissection and the extensive use of anatomical models.</p> <p><i>This course may be dual enrolled. A final grade and/or credit for this course will be earned at the end of the year. Students who wish to take this course as a dual enrollment course can earn four college credits through Lord Fairfax Community College (LFCC BIO 145). Students must satisfy enrollment criteria, complete labs, and pay a reduced college tuition rate to be eligible for college credits.</i></p>			

Sequential Electives

The following sequences are approved to meet the sequential electives requirement for graduation. Only courses not needed for graduation can count as a sequential elective. Please see the graduation requirements charts for more detailed information.

Academic Support		
Study Skills I	Followed by	Study Skills 2
Art		
Art Foundations	Followed by	Drawing and Painting I, Drawing and Painting II, Sculpture I, Sculpture II, AP Studio 2-D, AP Studio 3-D
Business and Information Technology		
Accounting	Followed by	Advanced Accounting, Computer Information Systems, Advanced Computer Information Systems, Design, Multimedia, & Web Technologies, Adv. Design, Multimedia, & Web Technologies, Entrepreneurship, Medical Systems Administration, Principles of Business & Marketing
Computer Information Systems	Followed by	Accounting, Advanced Accounting, Advanced Computer Information Systems, Design, Multimedia, & Web Technologies, Adv. Design, Multimedia, & Web Technologies, Entrepreneurship, Information Technology Fundamentals, Medical Systems Administration, Principles of Business & Marketing, Computer Programming, Advanced Computer Programming
Computer Programming	Followed by	Computer Information Systems, Advanced Computer Information Systems, Design, Multimedia, & Web Technologies, Adv. Design, Multimedia, & Web Technologies, Advanced Computer Programming
Design, Multimedia, & Web Technologies	Followed by	Accounting and Advanced Accounting, Computer Information Systems, Advanced Computer Information Systems, Adv. Design, Multimedia, & Web Technologies, Information Technology Fundamentals, Medical Systems Administration, Principles of Business & Marketing, Computer Programming, Advanced Computer Programming
Principles of Business & Marketing	Followed by	Accounting, Advanced Accounting, Computer Information Systems, Advanced Computer Information Systems, Design, Multimedia, & Web Technologies, Advanced Design, Multimedia, & Web Technologies, Entrepreneurship, Marketing, Advanced Marketing, Medical Systems Administration, Sports Entertainment Marketing
Education and Training		
Teachers for Tomorrow 1	Followed by	Teachers for Tomorrow 2

English		
Theatre I	Followed by	Improvisation
Forensics: Speech Events	Followed by	Forensics: Debate Events
English Learners		
English as a Second Language 1	Followed by	English as a Second Language 2, English as a Second Language 3
EL Algebra Readiness Part 1	Followed by	EL Algebra Readiness Part 2
Marketing		
Marketing	Followed by	Entrepreneurship, Advanced Marketing, Principles of Business & Marketing, Sports Entertainment Marketing
Principles of Business & Marketing	Followed by	Accounting, Advanced Accounting, Computer Information Systems, Advanced Computer Information Systems, Design, Multimedia, & Web Technologies, Advanced Design, Multimedia, & Web Technologies, Entrepreneurship, Marketing, Advanced Marketing, Medical Systems Administration, Sports Entertainment Marketing
Music		
Beginning Guitar	Followed by	Intermediate Guitar
Treble Ensemble or Concert Choir	Followed by	Chamber Choir
Social Studies		
Introduction to Psychology	Followed by	AP Psychology (Virtual Virginia)
Special Education		
Foundations of Math 1	Followed by	Foundations of Math 2 or Foundations of Algebra
Reading 1	Followed by	Reading 2
Technology/Trade and Industrial Education		
Industrial Maintenance 1	Followed by	Industrial Maintenance 2
World Languages <i>(only courses not needed for graduation can count as a sequential elective)</i>		
French I	Followed by	French II
German I	Followed by	German II
Latin I	Followed by	Latin II
Spanish I	Followed by	Spanish II

French IV	Followed by	AP French Language and Culture
German IV	Followed by	AP German Language and Culture
Spanish IV	Followed by	AP Spanish Language and Culture
Advanced Technologies Academy		
Cybersecurity Fundamentals	Followed by	Cybersecurity Systems Technology- A Cybersecurity Systems Technology- B
Cybersecurity Systems Technology - A Cybersecurity Systems Technology - B	Followed by	Advanced Cybersecurity Systems Technology -A Advanced Cybersecurity Systems Technology - B
Electronic Systems I	Followed by	Electronic Systems II
Professional Skills Academy		
Welding I	Followed by	Welding II- Part I, Welding II- Part II
Carpentry I	Followed by	Carpentry II- Part 1, Carpentry II- Part 2
Technical Drawing and Design	Followed by	Architectural Drawing and Design
Health Sciences Academy		
Emergency Medical Technician (EMT) 1	Followed by	Emergency Medical Technician (EMT) 2
Introduction to Health and Medical Sciences	Followed by	Medical Systems Administration, Medical Laboratory I, Nurse Aide I, Physical/Occupational Therapy I
Medical Laboratory Technology I	Followed by	Medical Laboratory Technology II
Nurse Aide I	Followed by	Nurse Aide II, Patient Care Technician
Physical / Occupational Therapy I	Followed by	Physical / Occupational Therapy II

