NEWPORT NEWS PUBLIC SCHOOLS

Program of Studies

2025-2026
Secondary Course Catalog

Table of Contents

General Information

Overview

Welcome to the Newport News Public Schools (NNPS) Program of Studies—your interactive guide to planning for middle and high school success.

This resource is designed to:

- Showcase the wide range of academic opportunities available in NNPS
- Provide clear information on courses, programs, and pathways—including Advanced Placement (AP), Dual Enrollment, and Career & Technical Education (CTE)
- Help students and families understand Virginia's graduation requirements
- Support the development of each student's Academic and Career Plan (ACP), ensuring their choices align with future academic and career goals

The Program of Studies is more than a catalog of courses—it is a planning tool that encourages collaboration among students, families, and school staff. By working together, we can create a personalized educational journey that supports student strengths, interests, and aspirations.

For questions about academic planning, course options, or special programs, please contact your student's school counselor.

Purpose of the Program of Studies

The NNPS Program of Studies is designed to help students and families:

- Explore the courses and programs offered in Newport News Public Schools middle and high schools
- Make informed decisions about course selections
- Understand Virginia's graduation requirements and plan for a diploma option that aligns with student goals
- Develop and refine an Academic and Career Plan (ACP) that supports both educational and career aspirations

Students are encouraged to use this guide as a resource and to consult with their parents/guardians, school counselors, and teachers when making academic decisions.

General Information

Meeting graduation requirements is the joint responsibility of each student and their parent(s)/guardian(s). Beginning in seventh grade, school counselors review diploma requirements with students annually. Counselors maintain an active role throughout middle and high school to support families in course planning and academic decision-making.

Graduation requirements depend on both the type of diploma (Standard or Advanced Studies) and the year a student first enters ninth grade. Families should work closely with the school counselor to confirm requirements and ensure students are on track for graduation.

Preparing for Success

At NNPS, students are empowered to achieve their goals and contribute meaningfully to their communities. An early start in planning helps ensure long-term success. With the support of families and school staff, students develop an Academic and Career Plan that reflects their individual strengths and goals.

When selecting courses, students should consider:

- Personal Attributes: strengths, abilities, interests, values, likes, and dislikes
- Curriculum Alignment: courses that support future education, career, or vocational goals

- Career Exploration: occupations that match skills and interests
- Additional Factors: finances, transportation, and extracurricular commitments

Academic and Career Planning

NNPS is committed to preparing students to be critical thinkers, communicators, collaborators, creators, and contributors. Academic and career planning is central to this mission.

Through course planning and experiential opportunities, counselors and teachers guide students in:

- Self-Exploration – understanding personal strengths and interests
- Career Exploration – learning about career fields and opportunities
- Skill Development – preparing for success after graduation

Academic and career planning begins as early as 5th grade and continues through high school to ensure all students graduate college- and/or career-ready. Print a copy of NNPS Academic Career Plan to use as a guide as you plan your middle school classes, high school courses and your post high school plan. For more information, contact your school counselor or visit the Virginia Department of Education (VDOE) website.

Career Clusters

Career Clusters help students explore career options and align course selections with future goals. Virginia has adopted a nationally recognized framework of clusters, pathways, and sample occupations.

At NNPS, school counselors collaborate with the Career and Technical Education (CTE) department to provide opportunities for students to discover and pursue their passions.

For more information about CTE pathways, programs, and career clusters, visit the NNPS Career Pathways webpage.

Note: Not all courses are offered at every school. Please consult your school counselor for specific course availability.

Course Selection

Course Selection, Course Load, and Schedule Changes

- Courses listed in this guide will be offered if there is sufficient enrollment and staff availability.
- High School (Grades 9–11): Students are expected to enroll in 7 credit-bearing courses.
  - Students may add up to 2 additional credit(s) per year through an approved virtual platform.
- High School (Grade 12): Students are expected to enroll in at least 5 credit-bearing courses unless special permission is obtained by school administration.

Class/Schedule Changes

The deadline for enrolling in a new course is through the second week of the first nine weeks of any semester. Withdrawal after that deadline is not permitted.

Availability of Classes

- Not all courses listed in this guide are available at every school.
- If enrollment in a course is low:
  - The course may not be offered.
  - Varying levels of classes may be combined. (EX: French III/IV)
- School counseling offices provide the most up-to-date information about available courses at each school.

Auditing a Course

- *Auditing* means a student attends a course regularly without earning academic credit.
- Newport News Public Schools does not allow students to audit courses.

Athletic Eligibility

All students participating in any Virginia High School League sponsored activity will have to meet academic standards established by the NNPS School Board.

Students participating in any VHSL sponsored activity must maintain a minimum of a 2.0 or higher grade point average (GPA) before participating in any VHSL sponsored activity. They may meet this requirement in two (2) ways:

- Students may maintain a cumulative 2.0 GPA or higher
- Students may have a 2.0 GPA or higher the previous semester average.

Students must continue to meet all VHSL eligibility requirements (pass 5 subjects from previous semester), in addition to the 2.0 GPA minimum.

A student athlete who wishes to play sports at the college level must plan carefully, starting in the ninth grade, to ensure that he/she has met the high school requirements for eligibility to play sports in college. Student athletes preparing to participate in Division I or Division II college athletics should inform their school counselor and must register with the NCAA Eligibility Center during second semester of tenth grade.

Program Options

Advanced Placement (AP)

The Advanced Placement (AP) Examinations Program is a service provided by College Board. High school students may take college-level examinations each spring and, depending upon their scores, may be awarded college credit and/or advanced placement at participating colleges and universities. All NNPS students who take AP courses must take the corresponding AP test in order to earn the full weighted credit for the course. Newport News Public Schools will pay for AP tests to be given to all students enrolled in appropriate courses.

Advanced Placement Examinations are administered in May of each year. In June, the examinations are graded on a five-point scale: 5 = extremely well qualified; 4 = well qualified; 3 = qualified; 2 = possibly qualified; and 1 = no recommendation. In July, the scores are sent to the students, their designated colleges, and their home schools. Colleges that participate in the Advanced Placement Examinations Program will then consider full or partial credit for scores of three or better.

Students enrolled in an AP course must work at an AP level throughout the course and put forth their best effort on the tests to be successful. The benefits of taking Advanced Placement courses include:

- getting a head start on college-level work
- improving writing skills and sharpening problem-solving techniques
- developing the study habits necessary for tackling rigorous course work
- studying subjects in greater depth and detail
- the opportunity to earn credit or advanced standing at participating colleges and universities

Visit the College Board website for more information.

The Governor's School for Science and Technology

The Governor's School for Science and Technology (GSST) at New Horizons Regional Education Center is operated by Gloucester, Hampton, Newport News, Poquoson, Williamsburg-James City County and York County Schools. The Governor's School provides a cohesive, innovative science and mathematics program that does the following:

- Embraces quality programming standards for gifted students recommended by the Virginia Department of Education and the National Association for Gifted Children
- Provides a cohesive sequence of courses in science, research, and mathematics
- Provides opportunities for social peer interaction, as well as career and college
- Provides leadership education and opportunities throughout the program

The Governor's School is a two-year, half-day program for 11th and 12th graders. Additional courses will be taken at the home high school to complete an Advanced Diploma degree. Each strand provides a unique emphasis on both the science subject matter and associated career fields. Students will be able to participate in one of the following three strands:

- The Engineering Strand involves an intense, rigorous study of fundamental principles of engineering and calculus-based physics.
- The Biological Science Strand provides insights into organic and inorganic chemistry in conjunction with cell and molecular biology by employing advanced technologies utilized in medicine, forensic science and research labs.
- The Computational Science and Engineering Strand combines the study of structured and object-oriented programming with applications in practical, non-calculus based physics scenarios.

With small class sizes and advanced-degreed faculty, the learning environment at the Governor's School is truly unique. Each course has been specifically structured to incorporate best practices for gifted students. Each strand requires completion of one year of high school biology, one year of high school chemistry and Algebra II/Trig prior to admission. For the engineering strand, students must have successfully completed Math Analysis (Pre-Calculus) prior to admission. All strands encompass a math course during both the junior and

senior year. Placement in the appropriate math course will be determined upon admission at the end of 10th grade. In addition, each strand will foster research through a Research Methods and Ethics course the junior year and an Honors Research and Mentorship placement the senior year.

In total, students will spend approximately three hours daily at the Governor's School, taking three courses each year during the two-year program.

Scientific Research Experience

During their two years at the Governor's School, students will experience hands-on science through classroom experimentation and individualized project research.

- The junior year research experience involves:
- various aspects of research methodology,
  - ethics and statistics,
  - critical thinking skills,
  - scientific writing and communication skills and
  - a research project for submission to the Tidewater Science Fair.
- During the senior year, students participate in an Honors Research and Mentorship experience with a professional. Final projects are presented to the local scientific and professional community as a culminating experience in May. The opportunity to work with a professional in research is an invaluable experience toward career pursuits.

Applied Leadership

A variety of school activities, clubs and competitions provide students with opportunities to cultivate their leadership skills. Social interaction and community building are integral components of the program. The Student Advisory Board provides another opportunity for students to lead their peers in the organization of the program and school travel activities.

Admissions Procedures

Admission to the program is highly competitive. Test scores, teacher recommendations and course grades will be used to determine which students will be invited to participate in the Governor's School Pre-Admissions Series offered in 9th and 10th grade. Designated students will take prerequisite courses offered at their high schools and will participate in informational sessions that will acquaint them with and prepare them for the two-year program. Final acceptance into the Governor's School in the spring of their 10th grade year will be dependent on math and science GPAs, teacher recommendations and PSAT scores.

For more information, visit the GSST website or call 757-766-1100, ext. 3313.

Governor's School for Science and Technology (GSST) Prospective Student Pipeline Program for Students Entering 8th-10th grade

The GSST Prospective Student Pipeline is a program for high-achieving students who are seriously considering attending the Governor's School for Science and Technology. The GSST Prospective Student Pipeline Program is comprised of informational sessions, which taken together, will provide guidance to prospective GSST families and students on how students can prepare themselves in 8th, 9th, and 10th grade to gain acceptance and achieve success at both the GSST Program and a competitive college. This program aims to educate families and students about:

- The program model of the GSST
- The features of each of the three academic strands.
- The course prerequisites necessary for acceptance into each academic strand
- How students can develop their talents in the classroom and beyond.
- How student can maximize their success in competitive college admissions.

How Do Students Apply for the Governor's School for Science and Technology (GSST) Prospective Student Pipeline Program?

Any middle school student and family interested in STEM, Science, Math, Engineering, Biological Science, or Computational Science are encouraged to sign up for the Prospective Student Pipeline Newsletter. Families and students signed up for the Prospective Student

Newsletter will receive an invitation from the GSST to attend a series of informational sessions. This program is designed to guide students to complete the necessary prerequisite courses offered in their middle and high schools in preparation to submit a formal application to the GSST Program in their 10th grade year.

For more information on the Governor's School for Science and Technology visit https://nhrec.org/gsst/home/how-to-apply/information-for-prospective-students/ or call 757-766-1100.

NNPS Early College Program

The Early College Program is a partnership between Newport News Public Schools and Virginia Peninsula Community College. The program is offered to qualified high school seniors in Newport News Public Schools who are prepared and interested in accelerating their coursework toward a college degree after they graduate from high school. The courses offered within this program are all part of the Commonwealth College Course Collaborative, whereby Virginia public colleges and universities have agreed to accept transfer credit for these courses as part of their college's general educational requirements.

Who is eligible?

- Students who are able to complete all high school Advanced Diploma requirements by the end of the first semester of their senior year.
- Students who successfully place into VPCC's English 111 (College Composition I) and English 112 (College Composition II) and successfully complete both courses with a grade of "C" or better during the first semester of their senior year.
- 3.0 minimum grade point average

What are the benefits?

- Provides students the opportunity to earn up to 19 transferable college credits at a reduced tuition rate
- Reduces the amount of time needed to earn a college or university degree
- Textbooks and transportation are provided by NNPS
- Academic support is available to each student by NNPS and VPCC
- Students may participate in their high school's extra-curricular activities while attending VPCC

For additional information visit the Early College website.

NNPS Early Career in Welding

The Early Career Program is a partnership between Newport News Public Schools and Virginia Peninsula Community College (VPCC). The program is designed for high school seniors who plan to pursue a vocational certificate after they graduate from high school. The program provides an opportunity for high school seniors to pursue certification that will open employment opportunities in the skilled trades industry immediately following graduation. This program requires a minimum of 15 participants annually and may not be offered if enrollment does not meet this requirement.

Who is eligible?

- Students who have completed all SOL requirements needed for the standard diploma prior to the start of senior year.
- Students who are able to complete all high school standard diploma requirements by the end of the first semester of their senior year.
- Students are able to matriculate to the welding program after completing the full year of English 12 and US Government during their senior year. Students may complete these courses through an online curriculum.

What are the benefits?

- Qualify for a high paying welding career in five months. (Average starting wages $22-$30/hr)
- Receive concentrated hands-on welding training in an accelerated learning environment from the region's best welding instructors.
- Job placement support is provided throughout the program.
- Small, interactive classes allowing welding instructors to provide individual attention to trainees.
- Families receive drastically discounted rate for the full welding certification program.

For additional information visit the Early Career in Welding website.

Magnet Schools

In addition to the comprehensive curriculum, students can apply to magnet programs, which allow them to focus more intensely on their career and academic interests. These programs include the fine arts and communications magnet at Woodside High School, the Governor's STEM Academy at Heritage High, the Governor's Health Sciences Academy at Warwick High, the University magnet at Heritage and the Aviation magnet at Denbigh. Students must apply to magnet programs. Transportation is provided to all programs.

For a complete guide to the magnet process and more information, please see your school counselor or visit Magnet & Specialty Programs.

Aviation Academy – Denbigh High School

Students at the Denbigh Aviation Academy may take courses in the following program areas:

- Aerospace Engineering
- Aviation Maintenance
- Flight Operations

Distinctive Features

- Small community of learning with a collegiate atmosphere
- Participate in community service, job shadowing and internships, and other leadership activities
- Profit from partnerships with business, higher education, professional and other groups
- State of the art facility that includes 3D printers, 3D scanners, a wind tunnel, flight simulators and virtual reality labs
- Developing skillsets that all employees need to be successful in the workforce
- Multiple aircraft for students to work on as well as taxi on runway
- A true hands-on facility that mirrors the Aviation/Aerospace workspace

Website: Aviation Academy
Brochure: DHS Aviation

Governor's STEM Academy - Heritage High School

Students at the Governor's STEM Academy at Heritage High School may take courses in the following program areas:

- Engineering and Robotics
- Computer Networking and Cybersecurity
- Computer Science and Game Design

Distinctive Features

Students will:

- Gain STEM literacy skills through an interdisciplinary curriculum that connects the four areas of science, technology, engineering and math
- Benefit from specialized, project-based courses which develop critical-thinking, problem-solving and decision-making skills, preparing them for high-wage and high-demand careers
- Acquire greater communication skills and develop workplace readiness skills
- Receive opportunities to earn industry certifications preparing them to be more competitive in the workforce and when applying to advanced training schools or postsecondary institutions
- Obtain meaningful, real-life, hands-on experiences in their career pathway
- Profit from opportunities for internships, mentorships, job shadowing, and cooperative education, which provide students with advantages when entering postsecondary education and/or the workplace

Website: http://heritage.nn.k12.va.us
Brochure: http://sbo.nn.k12.va.us/magnet/documents/magnet_heritage.pdf

University Magnet - Heritage High School

Students may take courses in the following program areas:

- Arts and Humanities
- Behavioral and Social Sciences
- Business/Marketing
- Mathematics and Science
- Natural Sciences
- Visual and Performing Arts

Distinctive Features

Students will:

- Acquire an Advanced Studies Diploma and explore various career pathways
- Complete at least six (6) Honors and/or Advanced Placement classes upon graduation to prepare them to be globally competitive
- Participate in community service, job shadowing and internships, and other leadership activities
- Profit from partnerships with business, higher education, industry professional and mentors

Website: http://heritage.nn.k12.va.us/about.html
Brochure: http://sbo.nn.k12.va.us/magnet/documents/magnet_heritage_univ.pdf

Governor's Health Sciences Academy - Warwick High School

Students at the Governor's Health Sciences Academy at Warwick High School may take courses in the following program areas:

- Therapeutic Services
- Diagnostic Services
- Health Informatics and Support Services
- Biotechnology Research and Development

Distinctive Features

- Integrated curriculum helps students establish connections between mathematics, science and technology
- Opportunities to learn about careers through mentors, career and technical education student organizations, career clubs, work site visits, guest speakers, internships and job shadowing experiences
- Participate in health-related school events
- Receive opportunities to earn health science related industry certifications preparing them to be competitive in the work-force and when applying to advanced training schools or post-secondary institutions.
- Obtain real-life and hands-on experiences through the use of the diagnostic and clinical health science labs

Website: http://warwick.nn.k12.va.us/
Brochure: http://www.nnschools.org/magnet/documents/magnet_warwick.pdf

Arts & Communication Magnet – Woodside High School

Students may specialize in:

- Music – theory, musicianship, performing, composing, arranging
- Dance – with emphasis on ballet and modern dance, choreography, and dance history and theory
- Drama – acting, directing, producing, stagecraft, scenery, lighting, costumes
- Creative writing – create original poetry, prose, essays, scriptwriting, historical fiction and critical reviews
- Communications – journalism, television production, engineering and technology and public relations
- Visual arts :
    - Studio – painting, printmaking, drawing, ceramics, sculpture, mixed media
    - Technology – computer art, video as art, web design
    - Photography – darkroom and digital.

Distinctive Features

- Arts instruction at a depth, level, and rigor not found in other Newport News high schools
- Opportunities to pursue an intensive study of the arts to enhance the student's overall academic program, including many extra arts opportunities such as: shows, field trips, visiting artists, master classes and more
- Chance to work and study with arts professionals
- Interdisciplinary study linking the arts with other disciplines
- Creative writers experience one-on-one conferences, peer evaluations, group readings, visiting authors and the Writing Center

Website: http://woodside.nn.k12.va.us/magnet.html
Brochure: http://www.nnschools.org/magnet/documents/magnet_woodside.pdf

Summer Institute for the Arts

The Newport News Summer Institute for the Arts (SIA) offers an intensive six-week program in dance, drama, music and visual arts each summer. Students are selected by a panel of area artists and educators based on written applications, auditions, review or portfolios and interviews.

The Institute is normally held at Woodside High School with specialty workshops held throughout the city. Tuition is charged and will be announced in the spring. Classes normally meet 7:30 a.m. – 2:00 p.m., Monday through Thursday, June through early August (specific dates to be announced). The staff consists of practicing artists, university staff and local educators.

Students, from rising eighth graders to high school seniors, residing in Newport News are eligible for the program. Students will receive one weighted credit (+.5 value) for completing an Institute course.

Students may pick up application forms and audition information from any fine or performing arts teacher or from the school counseling office in the spring. Completed applications must be returned to the school counseling office sometime in March, and auditions are usually in April. For more information, please call 757-283-7850.

Institute Programs

Visual Arts – Students will be given concentrated instruction and experiences in drawing as the basis for all other art skills. Art history and appreciation, including instruction and field trips to area galleries and museums will be included. Workshop opportunities in painting, sculpture, computer graphics and other media will be offered.

Music – The program will include instruction and performance in vocal or instrumental music. Additional studies will include music theory, the evolution of music, composition and arranging. Workshops in conducting, opera, musical theater, electronic music, recording techniques, career opportunities and related areas will be offered.

Drama – Students will receive advanced level instruction in voice, diction, stage movement, stagecraft and design, character development and acting. Workshops in stage combat, mime, improvisation, Shakespeare, musical theater, summer theater, puppetry, auditioning, lighting and set design, directing and careers in drama will be offered.

Program Objectives

- To develop the unique talents of students
- To provide a forum for the display of student's works
- To enhance student's abilities to analyze, interpret and evaluate the arts
- To increase student's awareness of career opportunities in the arts

GED Options for High School Students

While Newport News Public Schools would like to see all students graduate with a standard diploma, we realize that some students face challenges that make it difficult to meet that goal. As students become older and encounter circumstances that put them behind in their studies, they may begin to see graduation as an unreachable goal. Some students think about dropping out; however, NNPS would like these students to consider other options for gaining a high school credential.

If a standard diploma is no longer a realistic goal for you, please consider the General Educational Development (GED) program. The GED is recognized by over 90% of employers and accepted by a majority of colleges and universities. It is considered the equivalent of a high school diploma in many states. Those students who are at least 16-18 years of age and significantly behind in their progress toward graduation should consider an Individual Student Alternative Education Plan (ISAEP). GED instruction is available to Newport News Public Schools students through an ISAEP.

Parental/guardian permission is required if under the age of 18.

To enter the high school GED program, students must complete an application and take a battery of 4 computer-based tests consisting of: science, social studies, math and reasoning through language arts. Sixteen-year-old students must score a minimum of 145 in 3 subjects and a minimum of 140 in the fourth subject, as well as a 7.5 on the TABE reading test before entering the ISAEP program.

Website: GED Program

Governor's Early College Scholars Program

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. The result is a more productive senior year and a substantial reduction in college tuition. Students earning a college degree in seven semesters instead of eight can save an average of $5,000 in expenses.

To qualify for the *Early College Scholars* program, a student must:

- have a "B" average or better;
- be pursuing an Advanced Studies Diploma; and
- take and complete college-level course work (i.e., Advanced Placement, International Baccalaureate, Cambridge, or dual enrollment) that will earn at least 15 transferable college credits.

Early College Scholars are supported by Virtual Virginia and the Commonwealth College Course Collaborative. Virtual Virginia provides statewide access to college-level courses while the Commonwealth College Course Collaborative defines the subjects high school students can complete and receive college degree credit from participating public and private colleges and universities.

See your school counselor for more information or visit the following website: http://www.doe.virginia.gov/instruction/graduation/early_college_scholars/index.shtml. The Governor's Early College Scholars Program agreement can be found at the back of this book.

Newport News Scholars Program

1. The NNPS Scholars Program is designed to provide an academically challenging and intellectually stimulating advanced course of study; to recognize students' academic achievements beyond the advanced requirements for graduation; and to further enhance the NNPS Advanced Placement course offerings. The Superintendent's Seal of Distinction will be awarded on the diplomas of students who successfully complete the Scholars Program.
2. Requirements for the Scholars Program include:
    a. All requirements for the NNPS Advanced Studies Diploma
    b. As part of the graduation requirements, at least five Advanced Placement courses (at least one for each core content area – English, social studies, science, and mathematics – as well as a dual enrollment (college course) or an additional Advanced Placement course must be included in the student's program of study to qualify for a Scholars Seal. The Advanced Placement examination must be taken for all Advanced Placement credits applied toward the Scholars Program.
    c. A four-course sequence in at least one world language.
    d. Projects. The student must individually complete both of the following requirements:
        - *Individual Scholars Project* – research paper/project or multi-media project.
        - The *Scholars Project* must be pre-approved by the Division Scholars Committee. This committee will meet three times during each academic year, and the proposal should be submitted one week prior to an announced meeting date for consideration at that meeting.
        - The project will be selected by the student in an area of his/her interest.

    - The project must go beyond requirements for any course taken while in high school. International Baccalaureate senior papers and other senior projects may be expanded to meet the *Scholars Project* requirement.
    - The project must have a tangible product such as an advanced research paper/thesis, a complex multi-media project, or a specialized portfolio.
    - The project must culminate in a formal Scholars Presentation before an audience. The *Scholars Project* and presentation must be given no later than the end of the third quarter of the senior year.
    - The *Scholars Project* presentation should be a minimum of 15 minutes and a maximum of 30 minutes. A question and answer period should follow the presentation.
3. One hundred hours of elective community service which should be completed by the end of the eleventh grade. "Community Service" for this project is defined as, "Voluntary unpaid work for the good of others." The following guidelines describe hours that may be used for this community requirement.
    - Community service for this project must directly benefit the citizens of Newport News.
    - The 100 hours must be served on one focused service project in the area of the student's choice. The project should demonstrate a commitment, which is served over at least six sessions.
    - A plan for the community service project must be presented to and be pre-approved by the Division Scholars Committee. The project proposal may be presented for approval as early as the freshman year, but no later than May 15 of the junior year.
    - Community service hours credited toward the *Scholars Program* must be beyond hours required by any course, extra-curricular activity, or other school or community program requirement
    - No monetary compensation may be received by the student for these hours.
    - A log of hours verified by the supervising adult from the appropriate community organization must be turned in to the Scholars Program Coordinator (suggested completion by the end of the student's eleventh grade year).
    - The student will meet with the Scholars Committee to reflect on the community service experience at one of the three annual Scholars Committee meetings.
    - Adjustments to the required timeline will be considered on a case-by-case basis for students who transfer into NNPS during the 11th or 12th grade year.
4. The *Scholars Project* and elective community service may be coordinated as two components of a single project.

See your school counselor for more information. The Newport News Program Application can be found at the back of this book.

Health/Physical Education Graduation Credits

You have 3 ways to earn your two required Health/Physical Education graduation credits.

Traditional Method

- Student will enroll in 2 semesters of Health and 2 semesters of PE during the regular school day.
- Course work is completed in the classroom and gymnasium during the school year.

Considerations:

- Student will dress in appropriate PE attire throughout the semester
- No cost
- 90 days of classroom/gymnasium experience

Summer School

- Summer sessions 1 and 2 offer Health I, Health II, Outdoor Ed I and Outdoor Ed II annually.
- Sessions are 7:30 a.m. - 2:30 p.m., Monday through Thursday for three weeks.
- Students will earn .5 credit for each session completed
- Outdoor Education classes are held at Newport News Park and include activities such as hiking, biking, canoeing, fishing and camping.
- Daily attendance is required for successful completion of course.

Considerations:

- Outdoor summer weather conditions
- Summer school costs apply

- Full day program
- Each session is 12 days in length

After-School (8th period course)

- Student and parent will attend two mandatory Wellness and Fitness Management orientation meeting: 1 via Zoom and 1 in person to collect Polar wearable.
  (Contact your school counselor for more information).
- Students will be assigned a Polar heart rate monitor to track physical activity
- Students submit weekly activity logs and written work housed in Canvas

Considerations

- Self-paced course requires effective time management skills and self-motivation
- Flexible scheduling
- Internet access required to complete online assignments

Have questions? Contact your school counselor.

Personal Finance Graduation Credits

You have 3 ways to earn your required Personal Finance graduation credit.

Traditional Method

- Student will enroll in both semesters of course as one of 7 regular class periods.
- Coursework is completed in the classroom with a blended format of face-to-face and online instruction.

Considerations:

- No cost

Summer School

- Students will complete this required yearlong course during summer session l and summer session 2 (mid-June through beginning August).
- Student will earn credit for both semesters of course while only required to pay cost of one semester.

Considerations:

- Summer school costs apply

After-School (8th period course)

- Student will complete this yearlong course in an after-school format.
- Students will complete all formal assessments in after-school sessions.
- Students will complete coursework at home.

Considerations:

- No additional cost
- Internet access required to complete online assignments

Have questions? Contact your school counselor.

Advanced Placement Courses

You have 33 Advanced Placement courses to choose from.

Art

- AP Art History
- AP Music Theory
- AP Studio Art: 2-D Design
- AP Studio Art: 3-D Design
- AP Studio Art: Drawing

Math & Computer Science

- AP Statistics
- AP Calculus AB
- AP Calculus BC
- AP Computer Science A
- AP Computer Science Principles

World Languages

- AP French Language
- AP German Language
- AP Latin Language
- AP Spanish Language

History & Social Studies

- AP Human Geography
- AP Psychology
- AP US History
- AP US Government and Politics
- AP World History: Modern
- AP Comparative Government
- AP Macroeconomics
- AP Microeconomics

Sciences

- AP Environmental Science
- AP Biology
- AP Chemistry
- AP Physics C: Electricity and Magnetism
- AP Physics C: Mechanics
- AP Physics I: Algebra-based
- AP Physics II: Algebra-based

English

- AP English Language
- AP English Literature

AP Capstone Program

- AP Research
- AP Seminar

Colleges want to see RIGOROUS courses on your transcript!

AP Courses = RIGOR

All courses are not available in a traditional classroom format at each high school, but may be offered through other delivery methods. Please see your school counselor for more information.

Improve Your Grade Point Average

You have 5 ways to improve your Grade Point Average.

As a NNPS student, your goal is to maintain a GPA of 3.0 or above throughout high school.

Weighted Courses

- Enroll in and successfully complete Honors level classes each year.
  Students earn additional (5) credit for every honors class passed.
- Enroll in and successfully complete AP level classes each year.
  Students earn additional (1.0) credit for every AP class passed.

Considerations:

- No additional class time.
- Weighted courses demonstrate rigor of coursework which is the #1 factor used in determining college admissions decisions.

Edgenuity

- Retake a course utilizing the NPS credit recovery online portal.

Considerations:

- Self-paced course requires effective time management skills and motivation.
- Limited space available in each high school.

Grade Recovery

- Sign up for after school grade recovery program that provides the opportunity to improve low marking period grades by one full letter grade.

Considerations:

- Each high school determines which courses will be offered in this format.
- After-school attendance is mandatory for every session scheduled.

Summer School

- Retake core course for grade improvement. English, Social Studies and Science courses are available for repeat credit only. (Student must have been enrolled in the class previously)
- Take a course during the summer to make room for more rigorous class during the school year. Health, PE, Math and Personal Finance are available in the summer for original credit. (Student does not have to have been enrolled in the class previously.)

Considerations:

- Costs apply
- Can ear 1/2 credit in approximately 12 days (1 session)
- Can earn I credit in approximately 24 days (2 sessions)

Summer Institute of the Arts

- Enroll in an intensive 3 week arts program and earn .5 honors weighted credit per session.

Considerations:

- Costs apply
- Full day program including both summer sessions

NNPS students are allowed to retake classes for grade improvement for any course in which an undesirable final grade was earned.

Have questions? Contact your school counselor.

High School Programs Outside Your Zoned School

You have 6 High School Programs that will allow you to attend a school other than your zoned school.

Applications are available on the NNPS website at www.nnschools.org/magnet.

Applications are due in December for the next school year. High school magnet and specialty program applications are open to rising 9th graders only. Upper classmen should contact the program director directly to apply.

Transportation is provided for all students participating in any of the NNPS magnet and specialty programs.

Aviation Academy @ Denbigh High

A specialized four-year science, technology, engineering and mathematics (STEM) program that prepares highly motivated high school students for rewarding careers by developing 2l st Century Workplace skills through engineering technology in aviation maintenance and computers.

Areas of study:

- Aviation Technology
- Flight Operations
- Aerospace Engineering

Governor's STEM Academy @ Heritage High

A program of study designed to expand options for students in science, technology, engineering and mathematics (STEM) with a focus on teamwork, effective communication and application of STEM principles

Areas of study:

- Engineering and Robotics
- Networking and Cybersecurity
- Computer Science and Game Design

University Magnet @ Heritage High

An academically rigorous four-year program to prepare students in becoming responsible lifelong learners with demonstrated abilities in creative problem-solving, critical thinking and decision-making

Focus of study:

- 2 Honors and/or 1 AP level course per year
- Participation on College and Career Prep, SAT/ACT Prep and Senior Seminar
- Community Service, Job Shadowing and Internship Experiences

Governor's Health Science Academy @ Warwick High

A program combining academic coursework and clinical experiences in a challenging and collaborative school environment to prepare students for careers in the health sciences

Areas of study:

- Therapeutic Services
- Diagnostic Services
- Support Services and Health Informatics
- Biotechnology Research & Development

International Baccalaureate Program @ Warwick High

An internationally recognized and rigorous course of study designed to provide students with a well-rounded education and to facilitate geographical and cultural mobility

Focus of study includes pre-IB/IB level courses each year in the following disciplines:

- English Literature
- History of the Americas
- Mathematics
- Laboratory Science
- World Language
- Elective (one year)

Arts & Communications Magnet @ Woodside High

A four-year program offering students the opportunity for intensive study in the arts as part of a full and well-balanced academic program

Areas of study:

- Communications
- Creative Writing
- Dance
- Theater
- Music
- Visual Arts

Scan this QR code with your smart device to learn more:

Have questions? Contact your school counselor.

Leave School to Extend Your Learning

You have & ways to Leave School in order to Extend Your Learning Opportunities

Early College Program

- Qualifying seniors complete HS graduation requirements at the end of Semester 1 of senior year.
- During Semester 2, student attends Virginia Peninsula Community College (VPCC).
- Textbooks, transportation and partial fuition are provided by NPS.
- Students may continue to participate in all extra-curricular activities while attending VPCC.
- Students can earn up to 19 transferable college credits.

Early Career Program in Welding

- Qualifying seniors complete HS graduation requirements at the end of Semester l of senior year.
- During Semester 2, student attends Virginia Peninsula Community College with opportunity to complete 5 certifications in welding.
- Textbooks, transportation and partial tuition are provided by NPS.
- Students may continue to participate in all extra-curricular activities while attending VPCC.
- After successful program completion, the student will enter the workforce with a highly marketable skillset.

Career & Technical Education Cooperative Education (COOP)

- Program includes a combination of classroom instruction and on-the-job training.

- Students are required to work part time and receive course credit for their job performance.
- Work release periods allow for flexible scheduling. Credit can also be earned through an after school job experience (8th period).
- Students can earn one elective credit for job experiences.

Service Learning Internship

- Opportunity for students to connect their interests, skills and abilities with real life experiences for future careers.
- Student must accrue at least 70 hours (per semester) to earn course credit.
- Course requires a contract that provides guidelines and requirements for the project.
- Abbreviated school schedule allows opportunity for internship to be completed during the school day.
- School counselor will assist with coordination of service learning experience.

Honors Internship

- Opportunity for students to connect their interests, skills and abilities with real life experiences for future careers while earning a honors weighted credit.
- Student must accrue at least 125 hours (per semester) in a supervised, school approved opportunity to earn weighted course credit.
- Abbreviated school schedule allows opportunity for internship to be completed during the school day.

US Government via Distance Learning

- Course restricted to seniors only.
- Student will complete assignments outside of the classroom utilizing online instruction through Desire 2 Learn (D2L) program.
- Classroom teacher is available for assistance during regularly scheduled class period

Students can take additional vocational courses at ***New Horizons Regional Education Center*** as well as participate in an innovative program of science and mathematics at ***The Governor's School for Science and Technology***. See your school counselor for more information.

Have questions? Contact your school counselor.

Dual Enrollment

In partnership with Virginia Peninsula Community College (VPCC), students may be eligible to receive college credit for specific courses taken in NNPS. Successfully completed Dual Enrollment (DE) courses provide students with both high school and college credit simultaneously. Students that meet VPCC's Dual Enrollment Eligibility criteria may dual enroll with documentation of parent and principal approval. Dual Enrollment courses are college-level courses. Credits and grades earned in Dual Enrollment courses become a part of a student's permanent college transcript. Students interested in taking Dual Enrollment courses are encouraged to visit Transfer Virginia to see which colleges and universities will accept transfer credit from VPCC. Dual Enrollment course offerings in schools are based upon availability of staff who meet requirements set by VPCC and student enrollment. Please check with your school counselor regarding available Dual Enrollment course offerings for your school.

Career and Technical Education

NNPS Career and Technical Education (CTE) courses prepare students for successful futures while supporting Virginia's need for well-trained, industry-certified workers. Through a sequence of courses, students gain valuable knowledge and hands-on experience that build a foundation for internships, apprenticeships, industry certifications, and entry-level employment.

All CTE courses meet the Career & Technical Education graduation requirement and are offered in the following categories:

- Business & Information Technology
- Family & Consumer Sciences
- Health & Medical Sciences
- Marketing Education
- Technology Education
- Military Science
- Trade & Industrial Education

Many CTE courses provide opportunities for students to earn industry-recognized certifications or state licenses. These credentials:

- Strengthen a student's transcript and résumé
- Validate skills against industry standards
- Expand career opportunities
- Increase potential earnings

Certification exam availability may vary by school and is subject to change. For current information, students should contact their CTE teacher or school counselor. Additional industry credentialing opportunities are available through New Horizons Regional Education Center (NHREC).

New Horizons Regional Education Center (NHREC)
NHREC provides additional CTE opportunities for students across the region who meet specific prerequisites. Details regarding NHREC programs can be found in the Specialty Programs Course Offerings section of this Program of Studies or New Horizons program chart.

Grading Policies

Grade Point Average and Class Ranking of Secondary Students

Grade Point Average

Grade point averages will be provided for students in grades 9 through 12. Grade point average (GPA) and will be based upon the grades the student has earned in courses for which high school credit is awarded (including failing grades, repeated courses, summer school, night school and credit courses taken prior to grade nine). If a student repeats a course, only the higher of the two grades will be computed in the average.

Class Rank

1. Class ranking in Newport News Public Schools will be provided for students in grades 9 through 12.
2. Class ranking will be based upon the grades the student has earned in courses for which high school credit is awarded. This includes eighth grade accelerated courses in Algebra, Geometry, World Languages, and courses at the Governor's School for Science and Technology (GSST) for which high school credit is awarded.
3. Students will be ranked at the end of each semester.
4. Rank in class will be computed to the thousandth of a percent with the thousandth place truncated and no rounding imposed.
5. For purpose of designation of student honors and for college admission information, the end of the first semester of the senior year will serve as the cutoff date for computation of class rank.
6. In computing class rank of students, the following scale will be used:

Letter Grade	Points for Advanced Standing Courses (IB, AP, GSST)	Points for Honors Courses (H, Pre-IB)	Points for Standard Courses
A	5	4.5	4
B	4	3.5	3
C	3	2.5	2
D	2	1.5	1
F	0	0	0

7. Course weighting is assigned based upon the recommendation of the division curriculum committee and approval of the School Board. All courses identified for advanced standing contain a mandated external evaluation component. Students who do not participate in the external evaluation (i.e. AP exam) will receive honors weighted credit.
8. Class rank is to be determined by assigning the student with the highest GPA a rank of number one (1) in the class; the second highest, the rank of number two (2), etc. In cases where more than one student has the same numerical average, all students with that average will be given the same rank. The next highest average will assume the next rank position that will indicate the number of students having a higher rank. Rank will be computed to the hundredths place. Place value beyond the hundredths place will not be considered.

   Example:

Student No.	GPA	Rank	Note
1	4.00	Rank 1	
2	4.00	Rank 2	The student with the next highest grade average would have the rank of five (5) in the class, indicating that there are four students who rank higher.
3	3.98	Rank 3	

Student No.	GPA	Rank	Note
4	3.98	Rank 4	

9. Selection of Honors Graduates
   Class ranking computed at the completion of the first semester of the senior year will be used to determine honor graduates. A student with a 3.0 average is to be considered an honor graduate. A student with a 3.4 average will be recognized as graduating with highest honors.

   The student with the highest-class rank is to be declared the valedictorian of the graduating class. In instances when more than one student holds the numerical rank of one, all students holding the rank are to be declared co-valedictorians. A student who is a full-time college student and simultaneously completing requirements for a high school diploma is not eligible to be declared valedictorian or salutatorian of the class.
10. National Honor Society
    Membership standards for the National Honor Society are established in each high school. To be considered for membership, a student must have a minimum grade point average and meet other criteria as established by each school.

Secondary Grading Scale

A division-wide numerical scale is used for grading student performance in NNPS secondary schools. NOTE: Only letter grades appear on report cards and transcripts.

The numerical scale is:

Letter Grade	Numerical Grade
A	90-100
B	80-89
C	70-79
D	60-69
F	Below 60

Magnet Programs

Specialty Programs

Virtual Learning Academy

The Virtual Learning Academy at Point Option makes remote learning personal by creating a true community of educators and learners focused on academic and social success. The program moves beyond remote pandemic learning; students develop collaborative relationships with faculty and their peers.

Students enrolled in the VLA program are eligible to participate in extracurricular activities and athletics at their assigned school. The VLA has strong community partnerships that permit our students to participate in meaningful learning and socially engaging field trips and activities.

The NNPS Virtual Learning Academy (VLA) is an online learning option for students in grades sixth through twelfth grade. These rigorous classes meet or exceed Virginia's Standards of Learning (SOLs) and align with NNPS graduation requirements. Web-based classes include core subject matter content such as English, math, science and history as well as electives, special education services, and Advanced Placement (AP) courses. The VLA utilizes Virtual Virginia as its instructional platform.

Variety of Course Offerings: Courses in the VLA include a blend of synchronous (live) and asynchronous (independent) instruction led by VIrtual Virginia teachers.

Learning Community: The VLA is committed to meeting the needs of a diverse student population and advancing academic outcomes by providing equitable access to the learning environment for all students.

Flexibility: As one of Newport News Public Schools specialty programs, the Virtual Learning Academy provides students with choice and voice in how, when, and where they learn.

Students enrolled in the NNPS Virtual Learning Academy must take part in an in-person orientation at the start of the school year and may be asked to meet with teachers in-person for select screenings, assessments, or conferences.

Students are selected for the NNPS Virtual Learning Academy through an application process. The steps to apply are as follows:

- **Review Virtual Learner Characteristics**
  Students and families should review all information on this page to decide if the Virtual Learning Academy will meet their learning needs and goals.
- **Take Self-Assessment (optional)**
  Prospective VLA students should complete the self-assessment with a parent or guardian to determine if virtual learning is a good fit for their learning needs. This self-assessment will take approximately 5-10 minutes to complete. Answer each question to the best of your ability.
- **Complete the Online Application**
  After completing the self-assessment, complete the Virtual Learning Academy (VLA) Application. Once submitted, you will receive a decision notification via email within a few weeks.

Website: Virtual Learning Academy

Point Option

The Point Option High School program began in 1973 and offers a unique opportunity for students in grades 9-12 to experience teaching and learning in a non-traditional way. It also offers students of ability and determination a “second chance” to recapture credits and/or to accelerate their graduation to enter the workforce or postsecondary education. As a small teaching and learning community of 90-100 students, Point Option emphasizes personal responsibility and self-reliance as keys to student success. Students choosing to attend will be held to the highest ethical and behavioral standards.

The program is dedicated to the education of the whole person while offering youth who struggle to fit into the traditional high school environment a viable opportunity for success. Point Option is a specialty center, offering NNPS students a high school program designed to engage, empower through cross-curriculum projects, community connections and experiential learning.

Point Option is a “school of choice” requiring an application process. It differs from the comprehensive high school by offering smaller class sizes, flexibility in scheduling students, distance learning opportunities, weekly science field trips, an on-site fitness center, an outdoor education program, and daily scheduled teacher-led tutoring sessions in all subject areas both during and after school. Students in good standing may remain at Point Option to complete all graduation requirements while receiving their diploma from their zoned school upon completion of those requirements.

Admission Process

Students must complete and submit an application for admission and attend an interview with the Principal and School Counselor. The online application can be found at http://pointoption.nn.k12.va.us/ in the “Families” section.

The International Baccalaureate (IB) Program

The International Baccalaureate Diploma Program at Warwick High School in grades 11 and 12 is an internationally recognized course of study. The rigorous coursework is designed to provide students with a well-rounded education and to facilitate geographic and cultural mobility.

While the International Baccalaureate program provides a two-year curriculum and students could apply during their sophomore year, students generally apply for participation in Pre-Diploma classes in grades 9 and 10. The course of studies for the first two years prepares students for this rigorous academic program.

Beginning in the junior year, IB students take weighted, college-level courses leading to IB exams. Other requirements of the IB Diploma include a 4,000-word essay and participation in extra-curricular or community service activities. Students interested in the IB Diploma program should complete level I of a modern world language and take algebra or geometry in eighth grade.

Transportation to Warwick High School is provided by the school division for all IB students.

Students sit for international assessments and, where appropriate, Advanced Placement (AP) exams to assist them in earning advanced standing or college credit. Many colleges recognize the IB program and offer academic credit for those who score well on the IB examinations.

The IB Program offers special features in addition to the traditional strengths of a liberal arts curriculum.

Theory of Knowledge (TOK)

TOK is a required interdisciplinary course intended to stimulate critical reflection upon the knowledge and experience gained inside and outside the classroom. TOK challenges students to question the bases of knowledge, to be aware of subjective and ideological biases and to develop a personal mode of thought based on analysis of evidence expressed in rational argument. The key element in the IBO's educational philosophy, Theory of Knowledge seeks to develop a coherent approach to learning which transcends and unifies the academic subjects and encourages appreciation of other cultural perspectives.

Creativity, Activity, Service (CAS)

CAS is a fundamental part of the diploma curriculum. The CAS requirement takes seriously the importance of life outside the world of scholarship, providing a refreshing counterbalance to the academic self-absorption some may feel within a demanding school program. Participation in theatre productions, sports, and community service activities encourages young people to share their energies and special talents while developing awareness, concern, and the ability to work cooperatively with others. The goal of educating the whole person and fostering a more compassionate citizenry comes alive in an immediate way when students reach beyond themselves and their books.

Extended Essay

Diploma candidates are required to undertake original research and write an extended essay of some 4,000 words. This project offers the opportunity to investigate a topic of special interest and acquaints students with the kind of independent research and writing skills expected at a university. There are currently 64 subjects, including 36 in the languages area, in which the essay may be written.

See the available courses in the International Baccalaureate (IB) Program in this guide.

For more information about the IB program, visit the program's website at: http://warwick.nn.k12.va.us/ib/.

Graduation Requirements

General Information

The Virginia Board of Education establishes graduation requirements for all students in public schools. Newport News Public Schools bases its requirements on the Virginia Board of Education requirements. To receive a high school diploma, students must meet the minimum requirements for the Advanced Studies Diploma, the Standard Diploma, or an Applied Studies Diploma. These diploma programs are designed to ensure that students have the skills and knowledge necessary to continue educational options after high school or to enter the world of work. Through elective choices, students can design a course of study that best prepares them for different goals. Students are encouraged to consider both educational and career goals in selecting courses. Except for the sequential electives that are required for the Standard Diploma, the requirements for a student to earn a diploma shall be those in effect when that student enters the ninth grade for the first time. When students below the ninth grade successfully complete courses offered for credit in grades nine through twelve, credit is counted toward meeting the standard units required for graduation. To earn a verified unit of credit for the courses that have Standards of Learning (SOL) tests, students must pass the course and achieve a passing score on the end-of-course SOL test for that course or an identified substitute test as approved by the Virginia Board of Education.

Requirements for a Standard Diploma

To graduate with a Standard Diploma, students must earn 22 standard units of credit described in the table below, and of the standard units of credit earned, students will earn the following number of verified units of credit:

1. **Students entering 9th grade for the first time before 2018-2019:** English-two; math-one; science-one; history/social science-one; and one additional verified unit of credit of the student's own choosing.
2. **Students entering the 9th grade for the first time in 2018-2019 or later:** English-two; math-one; science-one; history/social science-one.

Students who complete the requirements for a standard diploma with a cumulative grade point average of 3.60 or better at the end of their senior year will receive a Board of Education Seal on the diploma.

1. Credits Required for Graduation with a Standard Diploma
   a. Earn a board-approved career and technical education credential. The credential could include, but not be limited to, the successful completion of an industry certification, state license exam, a national occupational competency assessment, or the Virginia workplace readiness skills assessment.
2. Successfully complete one virtual course, which may be non-credit bearing.
   Beginning with students entering ninth grade for the first time in 2018-2019, a student must also:
   a. Complete an Advanced Placement, honors, or International Baccalaureate course or earn a career and technical education credential that has been 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 earn credit. 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 skills assessment.
   b. Successfully complete one virtual course, which may be non-credit bearing.

Discipline Area	Units of Credit Beginning with 9th Graders entering 2011-2012 and beyond	Number of Credits Required to be Verified with 9th Graders 2011-2012 to 2017-2018	Number of Credits Required to be Verified with 9th Graders 2018-2019 and beyond
English	4	2	2
Mathematics[1]	3	1	1

Discipline Area	Units of Credit Beginning with 9th Graders entering 2011-2012 and beyond	Number of Credits Required to be Verified with 9th Graders 2011-2012 to 2017-2018	Number of Credits Required to be Verified with 9th Graders 2018-2019 and beyond
Laboratory Science[2, 6]	3	1	1
History and Social Sciences[3, 6]	3	1	1
Health and Physical Education	2		
Foreign Language, Fine Arts or Career and Technical Education[7]	2		
Economics and Personal Finance	1		
Electives[4]	4		
Student Selected Test[5]		1	
Total	22	6	5

[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.*

[2]*Courses completed to satisfy this requirement shall include course selections from at least two different science disciplines: earth sciences, biology, chemistry, or physics, or completion of the sequence of science courses required for the International Baccalaureate Diploma. The board shall approve courses to satisfy this requirement.*

[3]*Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either world history or geography or both. The board shall approve courses to satisfy this requirement.*

[4]*For the 2011-2012 academic year and beyond: Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.*

[5]*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.*

[6]*For the 2011-2012 academic year and beyond: 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 (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 of Education as an additional test to verify student achievement.*

[7]*For the 2011-2012 academic year and beyond: 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.*

Additional Requirements for Graduation

- **AP, Honors, IB, Dual Enrollment, Work-Based Learning, or CTE Credential** - Students shall (i) complete an Advanced Placement, honors, International Baccalaureate, or dual enrollment course; or (ii) complete a high-quality work-based learning experience, as established by Board guidance on work-based learning; or (iii) earn a career and technical education credential approved by the board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the advanced studies diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, 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.

- **First Aid, CPR, and AED Training** - Students shall be trained in emergency first aid, cardiopulmonary resuscitation (CPR), and the use of automated external defibrillators (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 5 C's** - In accordance with the Profile of a Virginia Graduate, students shall acquire and demonstrate foundational skills in Virginia's 5 C's : critical thinking, creative thinking, collaboration, communication, and citizenship.

1. Sequential Electives
   Two sequential electives are required for the Standard Diploma. Sequential electives may be in any discipline as long as the courses are not specifically required for graduation.
   - Courses used to satisfy the one unit of credit in a fine arts or career and technical education course may be used to partially satisfy this requirement.
   - An exploratory course followed by an introductory course may not be used to satisfy the requirement.
   - An introductory course followed by another level of the same course of study may be used.
   - Sequential electives do not have to be taken in consecutive years.
2. Locally Awarded Verified Credits for the Standard Diploma
   - pass the high school course but not pass the related Standards of Learning test or approved substitute;
   - score within a 375-399 scale score range on any administration of the Standards of Learning test after taking the test at least twice;
   - have earned fewer than four of the verified credits required for the standard diploma; and
   - demonstrate achievement in the academic content through the appeal process that follows.

     In the appeal process for the student, a review panel will be established at the school consisting of an administrator, the School Counseling Director, and the Lead Teacher for the appropriate content area. The panel will review the student's record for the course in question and grant the verified credit if the student has met the eligibility criteria listed above.

     No more than three verified credits may be awarded through this process. Students entering 9th grade prior to 2018-2019 may not use locally awarded verified credits for the Advanced Studies Diploma.
   - Students entering 9th grade 2018-2019 and after may be awarded one locally verified credit in any subject to fulfill the requirements for verified credits for a standard or advanced diploma. To be eligible for locally awarded verified credit, a student must:
     - pass the high school course but not pass the related Standards of Learning test or approved substitute;
     - score within a 375-399 scale score range on any administration of the Standards of Learning test after taking the test at least twice;
     - have earned fewer than four of the verified credits required for the standard diploma; and
     - demonstrate achievement in the academic content through the appeal process that follows.

       In the appeal process for the student, a review panel will be established at the school consisting of an administrator, the School Counseling Director, and the Lead Teacher for the appropriate content area. The panel will review the student's record for the course in question and grant the verified credit if the student has met the eligibility criteria listed above.
3. Locally Awarded Verified Credits for Students with Disabilities
   Students with disabilities who are eligible for credit accommodations, as stipulated in each student's IEP (Individual Education Plan)/504 plan, may be awarded locally verified credits in English and mathematics. (All students who meet certain criteria may be eligible for locally awarded verified credits in science and social studies in accordance with section #3 above.) To be eligible to earn locally awarded verified credits in English, mathematics, science and social studies, a student with a disability must:
   - Pass the high school course;
   - score within a 375-399 scale score range on any administration of the Standards of Learning test after taking the test at least twice; and
   - demonstrate achievement in the academic content through an appeal process administered at the local level.

     In the appeal process for the student, a review panel will be established by the Superintendent, or his/her designee. The panel will review the student's record for the course in question and grant the verified credit if the student has met the eligibility

criteria listed above. There is no set maximum number of certified credits that a student with a disability may be awarded through this process. Students may not use locally awarded verified credits for the Advanced Studies Diploma. Students entering 9th grade 2018-2019 and beyond may only use one locally awarded Verified Credit towards an Advanced Diploma.

Requirements for an Advanced Studies Diploma

1. To graduate with an Advanced Diploma, students must earn 26 standard units of credit described in the table below, and of the standard units of credit earned, students will earn the following number of verified units of credit:
   - Students entering 9th grade for the first time before 2018-2019: English-two; math-two; science-two; history/social science-two; and one additional verified unit of credit of the student's own choosing
   - Students entering the 9th grade for the first time 2018-2019 or later: English-two; math-one; science-one; history/social science-one.
2. Students who complete the requirements for an Advanced Studies Diploma with an average grade of 3.00 or better at the end of their senior year and successfully complete college-level coursework that will earn the student at least nine transferable credits in Advanced Placement (AP), International Baccalaureate (IB), or dual enrollment courses will receive the Governor's Seal on the diploma.
3. Beginning with students entering ninth grade for the first time in 2013--2014, a student must successfully complete one virtual course, which may be non-credit bearing.
4. Students entering 9th grade for the first time in 2018-2019 or late must Complete an Advanced Placement, honors, or International Baccalaureate course or earn a career and technical education credential that has been 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 earn credit. 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 skills assessment.

Credits Required for Graduation for an Advanced Diploma

Discipline Area	Units of Credit Beginning with 9th Graders entering 2011-2012 and beyond	Number of Credits Required to be Verified with 9th Graders 2011-2012 to 2017-2018	Number of Credits Required to be Verified with 9th Graders 2018-2019 and beyond
English	4	2	2
Mathematics[1]	4	2	1
Laboratory Science[2]	4	2	1
History and Social Sciences[3]	4	2	1
Foreign Language[4]	3		
Health and Physical Education	2		
Fine Arts or Career and Technical Education	1		
Economics and Personal Finance	1		
Electives	3		
Student Selected Test[5]		1	
Total	26	9	5

[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.*

[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.

[3]Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either world history or geography or both. The board shall approve additional courses to satisfy this requirement.

[4]For the 2010-2011 academic year only: Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.

[5]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 8 VAC20-131-110.

Additional Requirements for Graduation

- AP, Honors, IB, Dual Enrollment, Work-Based Learning, or CTE Credential - Students shall (i) complete an Advanced Placement, honors, International Baccalaureate, or dual enrollment course; or (ii) complete a high-quality work-based learning experience, as established by Board guidance on work-based learning; or (iii) earn a career and technical education credential approved by the board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the advanced studies diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, 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.
- First Aid, CPR, and AED Training - Students shall be trained in emergency first aid, cardiopulmonary resuscitation (CPR), and the use of automated external defibrillators (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 5 C's – In accordance with the Profile of a Virginia Graduate, students shall acquire and demonstrate foundational skills in Virginia's 5 C's : critical thinking, creative thinking, collaboration, communication, and citizenship.

Requirements for Diploma Seals from the Board of Education

1. Requirements for the Governor's Seal
   The Governor's Seal shall be awarded to students who complete the requirements for an Advanced Studies Diploma with an average 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.
2. Requirements for a Board of Education's Seal
   Students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an average grade of "A" shall receive a Board of Education Seal on the diploma.
3. Requirements for Board of Education's Career & Technology Education Seal
   The Board of Education's Career and Technical Education Seal will be awarded 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
   a. 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
   b. 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.
4. Requirements for Board of Education's Diploma Seal for Science, Technology, Engineering & Math (STEM)
   The Board of Education's STEM Seal will be awarded to students who earn either a Standard Diploma or an Advance Studies Diploma and satisfy all Math and Science requirements for the Advanced Studies diploma with a "B" average of better in all coursework, and
   a. successfully complete a 50 hour or more work-based learning opportunity in a STEM area, and

b. 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. A complete listing can be found at the following website: http://www.doe.virginia.gov/instruction/career_technical/path_industry_certification/index.shtml
c. 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.

5. Requirements for Board of Education's Seal of Advanced Mathematics and Technology
(Available to students entering high school prior to 2018-2019.)
The Board of Education's Seal of Advanced Mathematics and Technology will be awarded to students who earn either a Standard or Advanced Studies Diploma.
   a. 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
   b. and do one of the following
      - pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association
      - acquire a professional license in a career and technical education field from the Commonwealth of Virginia
      - 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.
6. Requirements for a Board of Education's Seal for Excellence in Civics Education
The Board of Education's Seal for Excellence in Civics Education will be awarded to students who earn either a Standard or Advanced Studies diploma and
   a. complete Virginia and United States History and Virginia and United States Government courses with a grade of "B" or higher
   b. have good attendance and no disciplinary infractions as determined by local school board policies
   c. complete 50 hours of voluntary participation in community service or extracurricular activities. Activities that would satisfy this requirement include:
      - 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 JROTC;
      - participating in political campaigns or government internships, or Boys State, Girls State, or Model General Assembly; or
      - 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.
7. Requirements for Board of Education's Seal of Biliteracy
The Board of Education's Seal of Biliteracy will be awarded to students who earn a Board of Education-approved diploma and:
   a. pass all required End-of-Course Assessments in English reading and writing at the proficient or higher level;
   b. and are proficient at the intermediate-mid level or higher in one or more language other than English, including American Sign Language, as demonstrated through an assessment from a list to be approved by the Superintendent of Public Instruction
8. Requirements for Board of Education's Seal for Excellence in Science and the Environment
The Board of Education's Seal for Excellence in Science and the Environment will be awarded to students who enter the ninth grade for the first time in the 2018-2019 year and thereafter, and meet each of the following criteria:
   a. earn either a Standard or Advanced Diploma
   b. 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
   c. 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.

Courses

Art

AR0019: Introductory Art

Introductory Art is a one-semester exploratory course designed to appeal to pupils who have little background knowledge in visual art. In the course students experience a variety of art media to further their appreciation of visual arts. It is not to be considered an alternative to Art I, nor can it count toward the sequential art program. This is a one semester course.

Credits	0.5
Prerequisites	None

AR0039: Digital Photography

Students will explore the creative possibilities of their digital cameras from a fine art approach. Emphasis will be placed on composition, lighting and subject choices. Traditional photo editing with basic computer software will be introduced. Students will be required to save all work in a digital portfolio. Students may repeat this course a second semester to advance skills. This is a one semester course.

Credits	0.5
Prerequisites	Art I Foundations, Introductory Photography, SIA or teacher recommendation

AR0049: Introductory Ceramics

Ceramics is a semester course focusing on the introduction of hand-built pottery methods. Relief and sculptural techniques will be explored. This is a one semester course.

Credits	0.5
Prerequisites	Successful completion of Art I Foundations or teacher recommendation

AR0079: History of Art

This course will acquaint the student with the varied avenues humanity has used to express itself through the visual arts. The course provides a balanced approach by combining art history, art criticism, and personal art production. History of Art provides a foundation to students to be future artists, historians, critics and patrons of the arts. This is a one semester course.

Credits	0.5
Prerequisites	Art I: Foundations of Art

AR0089: Career Development in the Visual Arts

This course will prepare students for a career or college setting by exploring topics such as selecting a career focus, technology for the 21st century artist, new art forms and emerging artists. Copyright laws for visual artist, preparing work for display and applying for commissions will also be studied. Students will develop and maintain a digital portfolio. Internships, guest speakers and behind the scene experiences will be sought to provide students insight into what it takes to reach their art career goals. This is a one semester course.

Credits	0.5
Prerequisites	Art I: Foundations of Art

AR0100: Art I: Foundations of Art

Art I: Foundations of Art emphasizes the development of abilities to recognize visual arts content and concepts. Students will develop skills to create, discuss and understand original works of art. Students will maintain a portfolio documenting their accomplishments.

Credits	0.5
Prerequisites	None

AR0200: Art 2D: Draw/Paint

Art 2D: Draw/Paint is an intermediate level course that emphasizes the importance of content, concepts and skills involved in the creation of original works of art. The student will demonstrate his/her understanding of mark making and design principles as applied to two-dimensional surfaces. Two-dimensional media may include drawing, painting, printmaking, mixed media and/or digital processes. In addition, art history, critical evaluation and aesthetics issues will be addressed. Students will continue to maintain a portfolio and select representative work to take to the next level of study.

Credits	**0.5**
Prerequisites	**Art I: Foundations or successful completion of Visual Art SIA with recommendation of art teacher.**

AR0300: Art 3D: Sculpture/Crafts

Art 3D: Sculpture/Crafts is an intermediate level course intended to address engagement with physical space and materials. In this course, the student should demonstrate his/her understanding of design principles as they relate to depth and space. The course emphasizes the importance of content, concepts, and skills involved in the creation of original works of art. Included are components of art history, critical evaluation and aesthetics. Selected works of art and other products will be added to the portfolio and carried forward to the next level of study.

Credits	**0.5**
Prerequisites	**Art I: Foundations of Art or successful completion of Visual Art SIA with recommendation of art teacher.**

AR0400: Ceramics

Ceramics is a full year course beginning with traditional hand built pottery methods and exploring the discipline of wheel throwing in ceramics production. Basic glaze and glaze chemistry will be covered. These techniques will be explored in the context of ceramic art historically and in contemporary art forms. This course also explores the use of ceramic materials in the larger context of sculptural possibilities. An emphasis on research and introspection is expected through the development of a personal portfolio.

Credits	**0.5**
Prerequisites	**Successful completion of Art I Foundations or teacher recommendation**

AR1100: Computer Art I

Computer Art I is a two-semester course focusing on the development of skills necessary to utilize standard computer tools and software in the creation of visual art, graphic designs and imaging. The course will focus on basic art design concepts, personal expression and creative problem solving. In addition, it will provide students with experiences exploring careers in the field of computer graphics.

Credits	**0.5**
Prerequisites	**Art I: Foundations of Art or recommendation of art teacher**

AR1200: Computer Art II

Computer Art II is a two-semester course that will continue to develop skills and provide experiences needed to enter career fields in visual arts, computer graphics and animation. Greater emphasis will be placed on creative problem solving and career simulation assignments. Students will maintain a digital portfolio.

Credits	**0.5**
Prerequisites	**Computer Art I or recommendation of art teacher**

AR3100: Art Portfolio Development

This course is designed for students who plan to continue to an Advanced Placement Studio Art course and/or make art or an art related subject a college or career choice. Students will develop technical and conceptual art making skills. 2D and 3D techniques, art history, art appreciation, and related areas of art are explored and developed. Students will work with the teacher to develop an individualized plan of instruction based on areas of artistic interest. Students are required to develop a portfolio of original ideas demonstrating a personal focus for art production.

Credits	**0.5**
Prerequisites	**2 credits in art; teacher recommendation and portfolio demonstrating serious interest and proficiency in art production**

AR3210: AP Studio Art: 2d Design

The portfolio for AP 2D Design is intended to address two-dimensional (2D) design issues. The unifying idea for the portfolio is that the student focuses on making decisions about how to use the elements of art and principles of design to create works of art that convey meaning. Any two-dimensional medium may be used for this portfolio. Each student develops and submits a portfolio that serves as a direct demonstration of achievement. The course guidelines are based on AP portfolio requirements. Coursework includes hands-on project development as well as research and writing assignments. The course is designed for the art student who wishes to pursue college-level study while still in high school, and for the student who is seriously interested in the practical experience of art. Students are required to keep a portfolio and research workbook (journal/sketchbook).

Credits	**0.5**
Prerequisites	**2 credits in Art; teacher recommendation and portfolio demonstrating advanced art skills**

AR3220: AP Studio Art: 3d Design

The portfolio for AP 3D Design is intended to address three-dimensional (3D) design issues. Works that are submitted for this portfolio explore depth and space by addressing issues related to mass, volume, and form. The focus is on using the elements of art and principals of design to create 3D works of art that convey meaning. Any three-dimensional medium may be used for this portfolio. Each student develops and submits a portfolio that serves as a direct demonstration of achievement. The course guidelines are based on AP portfolio requirements. Coursework includes hands-on project development as well as research and writing assignments. The course is designed for the art student who wishes to pursue college-level study while still in high school, and for the student who is seriously interested in the practical experience of art. Students are required to keep a portfolio and research workbook (journal/sketchbook).

Credits	**0.5**
Prerequisites	**2 credits in Art, teacher recommendation and portfolio demonstrating advanced art skills**

AR3230: AP Studio Art: Drawing

In AP Drawing, portfolio mastery of drawing may be demonstrated through a wide range of approaches and media. The unifying focus for this portfolio is the exploration of art that involves direct mark making on a surface. Light and shade, line quality, rendering of form, composition, surface manipulation and the illusion of depth are among the drawing issues that can be addressed. Each student develops and submits a portfolio that serves as a direct demonstration of achievement. The course guidelines are based on AP portfolio requirements. Coursework includes hands-on project development as well as research and writing assignments. The course is designed for the art student who wishes to pursue college-level study while still in high school, and for the student who is seriously interested in the practical experience of art. Students are required to keep a portfolio and research workbook (journal/sketchbook).

Credits	**0.5**
Prerequisites	**2 credits in Art, teacher recommendation and portfolio demonstrating advanced art skills**

AR3300: AP Art History

AP Art History is a comprehensive study of the history of art. The course includes study of architecture, painting, sculpture, and other art forms, within cultural and historical contexts. Students will examine the major forms of artistic expression in the past and present, including our own and that of other cultures. Students will learn to express opinions, conduct research, and to compare and contrast styles verbally and in writing. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Credits	**0.5**
Prerequisites	**None**

AR3400: Photography I

Photography I is an introductory course in basic darkroom and digital photography techniques. Students will learn the operations and functions of digital and film cameras. Basic darkroom processes and digital editing software will be introduced. Emphasis will be placed on developing creative expression by integrating technical knowledge with aesthetic approaches. In addition, the course will explore the history of photography and encourage students to develops career interest areas.

Credits	0.5
Prerequisites	Successful completion of Art I Foundations, Introductory Photography or teacher recommendation

AR3420: Photography II

Photography II is designed for students who have received credit for one full year of photography. Students investigate new areas in photographic media and often have a choice of camera formats and technologies for in-depth exploration. Emphasis is on thematic exploration for personal expression and on building a photographic portfolio.

Credits	0.5
Prerequisites	Successful completion of Photography I

AR3600: Honors Media Arts

Media Arts is a wo-semester focusing on the development of skills necessary to explore time-based and interactive arts such as video, animation, web design, and game design. The course builds on basic digital visual art skills and emphasizes storytelling, duration, hybridization, interactivity, and points of view. In addition, students will focus on communication, creative problem solving, and personal expression.

Credits	0.5
Prerequisites	Successful completion of Computer Art I or teacher recommendation

AR7300: Art Grade 7

Art Grade 7 emphasizes exploration of the creative process through analysis of the elements of art and the principles of design. Students develop technical skills that empower them to communicate ideas visually, with the focus on realistic representations of their environment.

Prerequisites	None

AR8300: Art Grade 8

Art Grade 8 emphasizes application of more complex technical skills as students manipulate the elements of art and the principles of design, art media and ideas. Students acquire art skills that enable them to make conscious choices of media and techniques for expressive purposes.

Prerequisites	None

RN6ART: ART Grade 6

Art Grade 6 is an exploration of the elements of art and the principles of design as a framework, students investigate a variety of experiences and concepts. Students explore various two-dimensional and three-dimensional art media using a variety of expressive and technical approaches.

Prerequisites	None

Aviation

AV1110: Introduction to Engineering Design-Aerospace

In this foundation course students use 3-D computer modeling software as they learn the engineering design process and solve design problems for which they develop, analyze, and create product models. This is a Project Lead the Way course

Credits	1.0
Prerequisites	None

AV1130: Aerospace Engineering

In this specialized course, students are taught about aerodynamics, astronautics, space-life sciences, and systems engineering through hands-on engineering problems and projects. This is a Project Lead the Way course.

Credits	1.0
Prerequisites	Honors Digital Electronics in Aviation

AV1150: Honors Engineering Design & Development Capstone

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

Credits	1.0
Prerequisites	Aerospace Engineering

AV1160: Honors Digital Electronics in Aviation

Students use computer simulations to learn about the logic of electronics as they design, test, and actually construct circuits and devices. They apply control system programming and explore sequential logic and digital circuitry fundamentals. Topics in computer circuitry are also presented. This is a Project Lead the Way course.

Credits	1.0
Prerequisites	Introduction to Engineering Design -Aerospace

AV1210: Aerospace Technology I

This offers an introduction to flight, space, and supporting technologies through a hands-on approach. Students explore the aviation and space industries through the history of aviation, working with aerodynamics and aircraft components, addressing maintenance and safety issues, assessing flight conditions, examining airport and flight operation, and analyzing the concepts of rocketry and space.

Credits	1.0
Prerequisites	None

AV1220: Aerospace Technology II

Aerospace Technology II provides an advanced exploration of flight, space travel, and supporting technologies through a problem-solving method and practical application. Students explore concepts in aircraft operations; aircraft design, flight safety and maintenance; airport infrastructure; rocket technology; space systems; and living and working in the aerospace Environment.

Credits	1.0
Prerequisites	Aerospace Technology I

AV1230: Aviation Maintenance Technology I

Students will work with airframe and control surfaces, power plants, and basic aviation electricity and perform ground operations and servicing procedures, as specified by FAA requirements. Students will also practice lab and tool safety, study career pathways, apply academic principles to aviation maintenance tasks, and research and use maintenance publications, forms, and records.

Credits	1.0
Prerequisites	Aerospace Technology II

AV1250: Honors Aviation Maintenance Technology II

Students will explore design features of aircraft through drawings and blueprints, aircraft materials and processes, weight and balance procedures, and fluid lines and fittings. Additionally, students will be taught care and maintenance techniques, such as how to identify and correct corrosion, practice lab and tool safety, and apply academic principles while working with aircraft.

Credits	2.0
Prerequisites	Aviation Maintenance Technology I

AV1310: Aircraft Pilot Training I

Students will obtain knowledge necessary to complete the FAA Private Pilot Airplane Written Examination. There are flight simulation lessons that support the ground lessons. This course covers Aerodynamic Principles, Powerplant and Related Systems, Flight Instruments Aircraft Performance, Weather Theory, Weather Reports and Forecasts, Federal Aviation Regulations, National Transportation Safety Board, VFR Charts, Airspace, Airport Markings and Operations, Radio Communication, Pilot age and Dead-reckoning Navigation, Radio Navigation, Flight Planning, and flight Physiology, as well as hands-on activities.

Credits	1.0
Prerequisites	None

AV1350: Honors Aircraft Pilot Training II

Students continue their pursuit in learning more about the pilot career and build on prior information learned in the Aviation Pilot Training I course. Students participate in flight training, ground school, and simulator instruction to support the flight syllabus while studying meteorology, aerodynamics, navigation, physiology, airfield and flight environments, aircraft maneuvers, and aircraft weight and balance.

Credits	2.0
Prerequisites	Aircraft Pilot Training I

AV1370: Honors Unmanned Aircraft Systems

This course prepares students to fly drones under the Federal Aviation Administration's (FAA) Guidelines. Students will learn about the National Airspace System and will design and operate small drones. Knowledge will be obtained related to passing the UAS (Unmanned Aircraft Systems) industry certification exam.

Credits	1.0
Prerequisites	Completion of Aerospace Technology I, Aircraft Pilot I and II.

Business & Information Technology

BU0209: Digital Applications

Students demonstrate an understanding of computer concepts through application of knowledge. Students learn to use software packages and local and worldwide network communications systems. Students develop or review correct keyboarding techniques and gain a basic knowledge of word processing, spreadsheet, database, graphics and telecommunications applications.

Credits	0.5

BU0309: Business Law

Students examine the foundations of the American legal system. Students explore economic and social concepts as they relate to legal principles and to business and personal laws. This is a one semester course.

Credits	0.5
Prerequisites	None

BU0530: Computer Network Software Operations

Course is designed to teach many aspects of computer support and network administration. Students learn networking concepts, usage of components, peer-to-peer network systems, client service networks, installation of network and workstation operating systems, set up and manage user accounts, create and implement security plans, communication protocols, troubleshooting techniques for systems and client server networks, website management, and other advanced networking readiness. The course prepares students for postsecondary education and training and a successful career in information technology.

Credits	1.0
Prerequisites	Information Technology Fundamentals

BU0550: Honors Advanced Computer Network Software Operations

Course continues to teach aspects of network administration, focusing on the management and support of network users and systems. The topics learned include understanding the responsibilities of computer professionals, training end users, evaluating new technology, developing system policies, troubleshooting workstations, managing network services and protocols, and effectively using email and business communications. Students learn communication protocols, troubleshooting techniques for systems and client-server network, website management, and other advanced networking topics. Techniques that are used to install operating systems, set up and manage accounts, load software, and create and implement security plans are taught.

Credits	1.0
Prerequisites	Computer Network Software Operations

BU1000: Information Technology Fundamentals

Information Technology (IT) Fundamentals introduces the essential skills needed for students to pursue specialized programs leading to technical and professional careers and certifications in the IT industry. The course provides an introductory framework as students prepare for higher-level certification programs and courses such as A+, CISCO, etc. Students have an opportunity to investigate career opportunities in four major IT areas: Information Services and Support, Network Systems, Programming and Software Development, and Interactive Media.

Credits	1.0
Prerequisites	None

BU1109: Principles of Business & Marketing

Students explore the roles of business and marketing in the free enterprise system and the global economy. Students study how basic financial concepts of banking, insurance, credit, taxation, and investments provide a strong background as they prepare to make decisions as consumers, wage earners and citizens. This is a one semester course.

Credits	0.5
Prerequisites	None

BU1520: Business Management

Students study basic management concepts and leadership styles as they explore business ownership, planning, operations, finance, human relations and the global market place. Quality concepts, project management, problem-solving and ethical decision-making are an integral part of the course.

Credits	1.0
Prerequisites	None

BU1600: Computer Information Systems

Students apply problem-solving skills to real-life situations through word processing, spreadsheet, and database software; multimedia presentations; and integrated software activities. Students work individually and in groups to explore computer concepts, operating systems, networks, telecommunications and emerging technologies.

Credits	1.0
Prerequisites	None

BU1650: Honors Advanced Computer Information Systems

Students apply problem-solving skills to real–life situations through advanced integrated software applications. Students work individually and in groups to explore advanced computer maintenance, website development, programming, networking, emerging technology and employability skills. Completion of this course may prepare the student for industry certification.

Credits	1.0
Prerequisites	Computer Information Systems

BU1710: Accounting

Students study the basic principles, concepts, and practices of the accounting cycle. Topics covered include analyzing transactions, journalizing and posting entries, preparing payroll records and financial statements, and managing cash systems. Students learn fundamental accounting procedures using a manual and an electronic system.

Credits	1.0
Prerequisites	None

BU1740: Honors Advanced Accounting

Students gain in-depth knowledge of accounting procedures and techniques used to solve business problems and make financial decisions. Students use accounting and spreadsheet software to analyze and interpret business applications.

Credits	1.0
Prerequisites	Accounting

BU1750, BU1760: Economics & Personal Finance

Students learn how to navigate the financial decisions they must face and to make informed decisions related to career exploration, budgeting, banking, credit, insurance, spending, taxes, saving, investing, buying/leasing a vehicle, living independently and inheritance. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship and career success. In addition to developing personal finance skills, students in the 36-week course will also study basic occupational skills and concepts in preparation for entry-level employment in the field of finance. The course incorporates all economics and financial literacy objectives included in the Code of Virginia §22.1-200.03B.

Credits	1.0
Prerequisites	None

BU1800: Design, Multimedia & Web Technologies

Students develop proficiency in creating desktop publications, multi-media presentations/projects, and websites incorporating principles of layout and design using industry standard application software. 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.

Credits	1.0
Prerequisites	None

BU5100: Programming

Students in the Programming course explore programming concepts, use algorithmic procedures, implement programming procedures with one or more standard languages, and master programming fundamentals. Coding is used throughout the course. Graphical user interfaces may be used as students design and develop interactive multimedia applications, including game programs. In addition, students employ HTML or JavaScript to create Web pages. Students develop their employability skills through a variety of activities.

Credits	1.0
Prerequisites	Successful completion of Algebra I

BU5300: AP Computer Science Principles

Students design, implement and interpret computer-based solutions to problems in several application areas, becoming knowledgeable about programming concepts, algorithm designs, and documentation of the computer solution. The course material emphasizes those concepts outlined by the College Board and prepares students to take the Advanced Placement Computer Science Principles test.

Credits	1.0
Prerequisites	Programming

BU7006: Computer Solutions

This exploratory course introduces students to the basic skills of computer technology required by the Standards of Learning. Word processing, spreadsheets, databases and presentation software will be included in the course content.

BU8006: Digital Technology Foundations

This course introduces the use of new and emerging data input tools that are becoming the standard in today's work and educational settings. Students will develop proficiency in the use of speech recognition software, digital cameras, digital video cameras and input tools for entering and manipulating text and data.

Prerequisites	None

RN6KEY: Keyboarding

This course is designed for middle school students to develop touch skills for entering alphabetic, numeric and symbol information on a keyboard. Students compose and produce personal, educational and professional documents.

Electives

MC0029: STEMinar

This course is designed to advance student's preparation in critical reading, technical writing, college and workplace readiness and career-ready communication. Students enhance their skills in STEM by participating in STEM work-based learning experiences to include participation in job shadowing and internships; creation of electronic portfolios; and digital media portfolios.

Credits	0.5
Prerequisites	None

MC0069: PSAT/SAT Prep

Students will prepare for the math and verbal portions of the SAT. Students will also learn how to improve study skills, develop note-taking strategies, and practice time management skills. This is a one semester course.

Credits	0.5
Prerequisites	Algebra I and one semester of Geometry

MC0079: Freshman Seminar

The Freshman Seminar will use the CollegeEd curriculum, which is designed to engage students in the college and career planning process. The course will focus on conveying important messages and practical information about colleges, careers, academic planning and relationship building. Students will visit colleges/ universities and participate in cultural events.

Credits	0.5
Prerequisites	Recommendation

MC0250: AP Seminar

AP Seminar is an interdisciplinary course that encourages students to demonstrate critical thinking, collaboration, and academic research skills on topics of the student's choosing. To accommodate the wide range of student topics, typical college course equivalents include interdisciplinary or general elective course. This is an elective course.

Credits	0.5
Prerequisites	None

MC0400: College & Career Prep

This course is designed to empower students to succeed in rigorous academic curriculum while preparing them to be college, career and citizen ready. Strategies will be shared in study skills, organizational skills, communication skills, oral interpretation skills, writing, test-taking strategies, personal development and team building. Students will maintain a portfolio and will be provided skills to maintain and continue it through high school. Students will design and create power point presentations and use audio-visual equipment and visual aids to enhance the delivery of presentations. Students will prepare for verbal and math portions of the PSAT, SAT and ACT by learning how to improve study skills, develop note-taking strategies, practice time management skills and utilizing current software and practice exercises. Students will have an opportunity to visit local colleges, businesses and participate in cultural field trips and explore career and college expectations through invited community guest speakers. Students will receive an elective credit and may sign up for this course through their school counselor.

Credits	0.5
Prerequisites	None

MC0409: Service Learning

Service Learning Internship is designed for students to connect their interests, skills, and abilities with school-based, business-based, and community-based projects in an effort to improve communities, refine student employment skills, and provide students with real-life experiences for future careers. The service learning yearlong course will provide students with an opportunity to give time, energy, and service to local schools, community organizations, businesses, and governing agencies while building a portfolio of job-like experiences. This course requires a contract that provides guidelines and requirements for the service learning project. A total of 140 hours of service (70 hours per semester) will be documented for this credit. Each service learner will work with a school-based mentor or community mentor to coordinate the effort.

Credits	0.5
Prerequisites	Contract

MC1500: Honors Internship

The Honors Internship Program will provide students with an opportunity to practice and refine their career skills in a real work environment. Students work at least 250 hours in a supervised (125 hours per semester), school-approved job that is related to their career interests.

Credits	0.5
Prerequisites	Application

MC1710: Virginia Teachers for Tomorrow I

This exploratory course fosters student interest in, understanding of, and appreciation for the teaching profession and introduces students to career in education. Students will develop self-awareness, collaborate with peers, build positive learning environments, and discover learner differences. The curriculum is designed to help students set attainable professional goals in the education and training career cluster. The course introduces students to the high school Virginia Teachers for Tomorrow (VTfT) program.

Credits	1.0
Prerequisites	None

MC1720: Virginia Teachers for Tomorrow II

Students continue to explore careers in the education and training career cluster and related pathways. This course provides hands-on opportunities for students to examine careers in education, observe professional practice, and apply professional standards and educational theory. In an authentic practicum experience, students will be able to teach lessons, manage classrooms, create learning opportunities, and build their professional portfolio in the process.

Credits	1.0
Prerequisites	Virginia Teachers for Tomorrow I

RN6STM, MC7210, MC8210: Integrative Stem

The iSTEM elective course provides students with an option to dive deeper into STEM, STEAM, and Computer Science by engaging in a problem-based curriculum that challenges students to apply their core knowledge to solve problems with career-connections presented in the form of design briefs. The structure of the course is designed to foster Virginia's 5Cs and to model workplace readiness by requiring students to work in teams throughout each hands-on PBL unit. By removing the constraints and boundaries of traditional curriculum pacing, this course allows for intentional curriculum mapping which enables the teacher to develop high-interest learning experiences based on the natural intersections between disciplines.

English

EE1100: Journalism I

The Journalism I course introduces students to mass media and instructs students in various steps of reporting and news writing. Course content includes techniques for gathering the story, writing different types of stories, layout & design, and management & production of newspapers and other media.

Credits	0.5
Prerequisites	Successful completion of English 8 or 9

EE1250: Honors Journalism II

Journalism II continues to develop a student's ability to write in a journalistic style while improving personal writing style. Course content includes the types, styles, mechanics, and editing of news writing.

Credits	0.5
Prerequisites	Successful completion of Journalism I

EE1400: Photojournalism I

This course uses a curriculum for yearbook journalism, which will help the yearbook staff understand how to correctly communicate designs to the publisher. The course includes close-ups of common design application and copy preparation procedures required for printing. This course may be repeated for credit.

Credits	0.5
Prerequisites	**Successful completion of English 9 and evidence of above average writing skills. The writing folder may be used for evidence of writing proficiency. Student interest and teacher recommendation will also be considered. Students must meet VHSL eligibility requirements due to the state publication competition that is part of the course requirement.**

EE1550: Honors Photojournalism II

A continuation of Photojournalism I, students will use the skills they have learned to work on the publication of the school yearbook. Students will use the interpersonal skills learned in Photojournalism I to interview students, collaborate with staff, and photograph events. Advertisements may be sold for publications.

Credits	0.5
Prerequisites	**Successful completion of Photojournalism I and teacher approval**

EE2009: Creative Writing

Creative writing is designed to help students develop creative writing skills and prepare manuscripts for publication. Students will create individual creative writing booklets, share work in a writer's circle, and contribute to a classroom literary magazine. Whenever possible, students will share completed work with live audiences.

Credits	0.5
Prerequisites	**Successful completion of English writing portfolio**

EE2010: Creative Writing I

Students in Creative Writing I will establish skills for the writing of poetry and prose by reading and writing pieces in both genres regularly. They will explore all aspects of good writing through their studies and daily practice. Students will actively display growth through their ability to workshop, revise, and publish pieces in various genres.

Credits	0.5
Prerequisites	None

EE2020: Creative Writing II

Students in Creative Writing II will expand skills in poetry by exploring traditional and modern forms of poetry and creating their own unique poetic style and voice. They will further skills in prose by studying and writing fiction and nonfiction regularly. Students will actively display growth through the ability to workshop, revise, and publish pieces in various genres.

Credits	0.5
Prerequisites	**Creative Writing I or permission from instructor**

EE2030: Creative Writing III

Students in Creative Writing III will expand their skills in poetry, fiction, and nonfiction and begin establishing skills in scriptwriting. Students will work closely with Creative Writing IV to edit, revise, and publish pieces for the literary magazine, establishing skills in technical writing, design, and editing. Students will actively display growth through the ability to workshop, revise, and publish pieces in various genres.

Credits	0.5
Prerequisites	**Creative Writing II or permission from instructor**

EE2040: Creative Writing IV

Students in Creative Writing IV will expand their skills across all genres. Students will be responsible for six yearly publications in various mediums, including electronic and print publications. Students will actively strive to concrete their skills as creative and technical writers in this course, and they will display growth through the ability to workshop, revise, and publish pieces in various genres.

Credits	0.5
Prerequisites	Creative Writing III or permission from instructor

EE2050: Capstone Creative Writing (Advanced Creative Writing)

Capstone Creative Writing is an honors creative writing course that will prepare students for a career as a published author. Students will complete three full manuscripts in the following genres: novels, play scripts, and poetry. This course will serve as a culminating experience for students in the creative writing magnet.* Students will prepare all three pieces for publication in this course, and they will be prepared for life as a professional writer/ author after high school. Interested students not in the creative writing magnet must get approval from the creative writing teacher to participate in this class.

Credits	0.5
Prerequisites	Creative Writing I-IV (or specific approval from instructor)
Corequisites	Creative Writing IV (or specific approval from instructor)

EE2219: Literature & Film I

Literature and Film focuses on a comparative study of several novels and short stories and the films they inspired. Students will read selected literature, view and analyze elements of films, discuss and write analytical and comparative essays, and present independent and group projects to the class. The course emphasizes critical reading of literature and formal writing about films. This is a one semester course.

Credits	0.5
Prerequisites	None

EE2239: Ancient Literature & Mythology

Ancient Literature and Mythology focuses on developing a sense of cultural literacy, an understanding of multi-cultural literacy, and an enriched vocabulary. Students will study the mythology of Greece and Rome; writings from the Near and Middle East; and selections from Africa, Scandinavia, North, Central, and South America, and Asia. This is a one semester course.

Credits	0.5
Prerequisites	None

EE2249: Literature & Film II: Screenwriting

Literature and Film II is a writing-intensive, hands-on, project-based course that will build on the objectives of the Literature and Film I course. Emphasis will be placed on structure and formatting of screenplays, as well as creating film sequences from storyboard to completion. Assignments include screen writing, storyboarding, organizing, and laying out a sequence of film and may also include filming, editing, and presenting a final student-generated short film of not less than 15 minutes. This is a one semester course.

Credits	0.5
Prerequisites	Literature & Film I

EE2310, EE2320: Honors Debate I & II

Debate is designed to help students develop a wide repertoire of speaking skills while developing poise and confidence. The students will be exposed to a variety of speaking and debating experiences both in the classroom and in competition through engagement in multiple speech events sanctioned by the Virginia High School League, Tidewater Debate League and the National Forensic League. This course may be repeated for credit.

Credits	0.5
Prerequisites	None

EN1100, EN1200: English 9/Honors

The student will be introduced to various genres, focusing on a balance of fiction and nonfiction that are anchored by a Big Idea. Increased requirements for research and reporting in all subjects will be supported by the use of print, electronic databases, online resources, and other types of media. The student will distinguish between reliable and questionable sources of information. The student will continue authentic vocabulary development from anchor texts, with attention to connotation, idioms, and allusions, and their impact on a text. Writing will be primarily persuasive, for a wide variety of purposes, and audiences, and will include analysis of sources and textual evidence. The student will reflect on their growth as a writer. Critical thinking, communication, and collaboration will be stressed.

Credits	0.5
Prerequisites	None

EN2100, EN2200: English 10/Honors

The student will read and analyze a variety of literary texts from different eras and cultures, as well as nonfiction text that relates to the unit's Big Idea. The student will reflect on their growth as a writer and will critique the writing of peers, using analysis to improve writing skills. The student will continue to build research skills by crediting sources and presenting information in a variety of formats appropriate for content. The student will continue authentic vocabulary development from anchor texts. Critical thinking, communication, and collaboration will be stressed.

Credits	0.5
Prerequisites	None

EN2301/EN2302: AP English 10 Seminar

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Students learn to investigate a problem or issue, analyze arguments, compare different perspectives, synthesize information from multiple sources, and work alone and in a group to communicate their ideas.

Credits	0.5
Prerequisites	English 9

EN3100, EN3200: English 11/Honors

The eleventh-grade student will study both classical and contemporary American literature with nonfiction texts, paired together by the unit's Big Idea. The student will be able to identify the prevalent themes and characterizations present in American literature, which are reflective of history and culture. The student will use fiction and nonfiction texts to draw conclusions and make inferences, using textual evidence to support their claims. The student will continue authentic vocabulary development from the anchor texts. The student will be able to effectively deliver content to their peers and write clear and accurate personal, professional, and informational correspondence with a focus on persuasion and counterclaim. The student will reflect on their growth as a writer. Critical thinking, communication, and collaboration will be stressed.

Credits	0.5
Prerequisites	None

EN3300: AP English 11

The AP English 11 course in Language and Composition is primarily a course in effective writing and critical reading. The writing skills that students come to appreciate through attentive and continued analysis of a variety of prose texts can serve them in their own writing as they become increasingly aware of these skills and their pertinent uses. American Literature is the primary focus for analysis and reflection. The instructional level equals that of college freshman English courses. All SOL requirements are met and students take both the English EOC Reading and the Writing SOL Tests. Students also prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Credits	0.5
Prerequisites	Satisfactory completion of English 9 and 10

EN4100, EN4200: English 12/Honors

The twelfth-grade students will read and analyze British literature, as well as nonfiction texts, to explore other cultures. The student will use organizational skills, audience awareness, appropriate grammar, and both verbal and nonverbal presentation skills to plan and deliver effective presentations to peers. This course contains content designed to provide successful transition and entry into college and careers. This course advances students' preparation for critical thinking, college and workplace writing, and career-ready communications, and focuses on the fundamentals of academic writing, with a focus on persuasion and argumentation. The student will reflect on their growth as a writer. Critical thinking, communication, and collaboration will be stressed. Critical thinking, communication, and collaboration will be stressed.

Credits	0.5
Prerequisites	None

EN4300: AP English 12

The AP English 12 course is designed to engage students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students can deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. Writing is an integral part of AP English. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Credits	0.5
Prerequisites	Satisfactory completion of English 9, 10 and 11

EN6000: English 6

The sixth-grade student will independently read a variety of fiction and nonfiction, focusing on an appreciation of reading and overall comprehension of text. The student will plan, draft, revise, and edit narratives, descriptions, and explanations, and will also respond to short answer critical thinking questions, paying attention to composition and written expression, as well as usage and mechanics. The student will begin the study of word origins and continue authentic vocabulary development from anchor texts. The student will reflect on their growth as a writer. Additionally, technology will be used as a tool to research, organize, and communicate information. Critical thinking, communication, and collaboration will be stressed.

Prerequisites	None

EN7000: English 7

The seventh-grade student will continue to read a wide variety of fiction and nonfiction, focusing on becoming more independent and analytical with text. The student will continue to refine written composition skills, with special attention to word choice, organization, style, and grammar. The student will continue authentic vocabulary development from anchor texts and will apply research techniques to gather, organize, and communicate information, properly citing sources. The student will reflect on their growth as a writer. Critical thinking, communication, and collaboration will be stressed.

Prerequisites	None

EN8000: English 8

The student will continue to develop an appreciation for literary genres through a study of wide fiction and nonfiction selections. The student will focus on making inferences, drawing conclusions, interpreting cause-and-effect relationships, differentiating between fact and opinion, and drawing conclusions. The student will plan, draft, revise, and edit writing, with an emphasis on exposition and persuasion to include the counterclaim. The student will apply reading, writing, and research skills in all subjects, as well as respond critically to a wide variety of text. The student will reflect on their growth as a writer. The student will continue authentic vocabulary development from anchor texts. Critical thinking, communication, and collaboration will be stressed.

Prerequisites	None

English as a Second Language (ESL)

EN1910: ESL I English 9

Sheltered English 9 is a year-long course designed specifically for Newcomer English Learners to fulfill their English 9 credit. This course provides an accessible and supportive environment where students develop foundational English language skills while engaging with grade-level content in reading, writing, speaking, and listening. Using scaffolds, visual aids, and language acquisition strategies, students will explore a variety of literary and informational texts aligned with the English 9 curriculum. Emphasis will be placed on building academic vocabulary, improving sentence structure, and mastering key components of English grammar. Students will also develop critical thinking and analytical skills through class discussions, projects, and written assignments tailored to their language proficiency levels.

Throughout the course, students will work on:
• Reading comprehension strategies for fiction and nonfiction texts.
• Writing coherent paragraphs and essays, with a focus on structure and clarity.
• Speaking and listening skills through collaborative activities and presentations.
• Language development to support success in other academic courses.

ES0210: ESL Literacy I

The year-long course is designed for students who have successfully exited the Newcomer ESL program but continue to require additional academic language support and opportunities to strengthen their language practice skills. This course focuses on bridging the gap between foundational English proficiency and the demands of grade-level academic coursework.

Students will engage in targeted activities to develop advanced academic vocabulary, refine grammar and sentence structure, and enhance their reading, writing, speaking, and listening skills. The curriculum integrates content-based instruction to support students' success in core academic subjects, with an emphasis on critical thinking, analysis, and communication.

Key areas of focus include:
• Developing complex sentence structures and academic writing skills.
• Enhancing reading comprehension strategies for advanced texts, including literary and informational material.
• Strengthening oral communication through presentations, group discussions, and collaborative projects.
• Building academic vocabulary necessary for success in content areas such as science, social studies, and mathematics.

This course provides a supportive and structured environment for students to gain confidence in their academic abilities while continuing to grow as proficient English language users.

ES0220: ESL Literacy II

The year-long course is designed for English Learners at a Level 2 language proficiency who are building the advanced academic language skills necessary for success in grade-level coursework. This course provides targeted instruction to enhance students' reading, writing, speaking, and listening abilities while supporting their continued language development.

Students will engage in activities that bridge conversational fluency with academic rigor, focusing on mastering the vocabulary, grammar, and communication strategies needed for success in all content areas. Lessons are designed to integrate language learning with grade-appropriate academic content, promoting critical thinking and effective communication.

Key areas of focus include:
• Expanding academic vocabulary and understanding of subject-specific terms.
• Strengthening reading strategies for complex literary and informational texts.
• Developing well-structured paragraphs and essays with an emphasis on coherence and detail.
• Practicing advanced listening and speaking skills through presentations, discussions, and collaborative tasks.
• Applying language skills in authentic academic contexts across disciplines.

This course supports students in transitioning from developing to proficient language users, equipping them with the tools to actively engage in grade-level coursework and achieve academic success.

ES0230: ESL Literacy III

The year-long course is tailored for English Learners at an intermediate proficiency Level 3 who are refining their academic language skills to achieve full success in grade-level coursework. This course focuses on enhancing students' ability to effectively comprehend and produce complex academic language while strengthening their reading, writing, speaking, and listening abilities.

Through engaging, content-rich instruction, students will deepen their understanding of advanced vocabulary, grammatical structures, and language functions necessary for academic success. The curriculum integrates cross-disciplinary themes to build confidence and fluency in academic communication.

Key areas of focus include:
• Mastering higher-level academic vocabulary and understanding nuanced language use.
• Analyzing and interpreting complex texts, including fiction, nonfiction, and technical materials.
• Writing multi-paragraph essays and responses with clarity, organization, and detailed evidence.
• Practicing advanced speaking and listening skills in structured academic discussions and presentations.
• Applying critical thinking and language skills to problem-solving and collaborative activities across content areas.

This course provides structured support for students transitioning to full academic proficiency, equipping them to actively engage in grade-level coursework with confidence and independence.

ES5100: ESL Newcomers

ESL Newcomers is a year-long course designed for newly arrived English Language Learners (ELLs) who have been enrolled in a U.S. school for less than 12 months and scored a Level 1.5 or lower on the WIDA Screener exam. This course provides a supportive and structured environment to help students build the foundational skills necessary for English language acquisition while adapting to a new academic and cultural setting.

The curriculum emphasizes essential vocabulary, basic grammar, and everyday language skills, enabling students to communicate effectively in both social and academic contexts. Through interactive and engaging activities, students will develop the foundational skills needed to navigate their new school environment and begin their journey toward English language proficiency.

Key areas of focus include:
• Building every day and school-related vocabulary.
• Developing basic grammar and sentence structure.
• Practicing listening and speaking skills for daily interactions and classroom participation.
• Reading and understanding simple texts, including stories and informational materials.
• Writing short sentences and paragraphs with a focus on clarity and correctness.
• Acclimating to U.S. school culture, routines, and academic expectations.

This course is tailored to meet the unique needs of newcomer students, providing a welcoming space where they can grow in confidence and ability as they begin their educational journey in English.

MA0120: Foundations of Math for SLIFE

Fast Math is a year-long math course designed for newly arrived English Language Learners (ELLs) who have been enrolled in a U.S. school for less than 12 months, scored a Level 1 on the WIDA Screener exam, and have experienced limited or interrupted formal education. This course focuses on building foundational math skills while simultaneously developing students' English language proficiency to support success in both math and general academic settings.

The curriculum is designed to address gaps in mathematical knowledge while incorporating essential academic language and vocabulary. Through hands-on activities, real-world problem-solving, and scaffolded instruction, students will gain confidence in basic math concepts and their ability to apply them in everyday and classroom contexts.

Key areas of focus include:
• Understanding and applying basic number sense (e.g., addition, subtraction, multiplication, division).
• Recognizing and using math vocabulary in English to describe operations and concepts.
• Learning foundational concepts in geometry, fractions, and measurement.
• Practicing problem-solving strategies through visual supports and interactive activities.
• Developing critical thinking and reasoning skills in math contexts.
• Acclimating to U.S. classroom routines and expectations for math instruction.

Fast Math provides a supportive and engaging environment for students to build foundational math skills while developing the language needed to succeed in future math courses and broader academic settings.

Newcomers: Newcomers

ESL Newcomers is a year-long course designed for newly arrived English Language Learners (ELLs) who have been enrolled in a U.S. school for less than 12 months and scored a Level 1.5 or lower on the WIDA Screener exam. This course provides a supportive and structured environment to help students build the foundational skills necessary for English language acquisition while adapting to a new academic and cultural setting.

The curriculum emphasizes essential vocabulary, basic grammar, and everyday language skills, enabling students to communicate effectively in both social and academic contexts. Through interactive and engaging activities, students will develop the foundational skills needed to navigate their new school environment and begin their journey toward English language proficiency.

Key areas of focus include:
• Building every day and school-related vocabulary.
• Developing basic grammar and sentence structure.
• Practicing listening and speaking skills for daily interactions and classroom participation.
• Reading and understanding simple texts, including stories and informational materials.
• Writing short sentences and paragraphs with a focus on clarity and correctness.
• Acclimating to U.S. school culture, routines, and academic expectations.

This course is tailored to meet the unique needs of newcomer students, providing a welcoming space where they can grow in confidence and ability as they begin their educational journey in English.

SOL Prep: SOL Prep

SOL Prep is a year-long course designed to support students in developing their academic English language skills, with a focus on reading comprehension, vocabulary acquisition, and oral language development. This course utilizes the SIPPS Plus (Systematic Instruction in Phonological Awareness, Phonics, and Sight Words) program to build foundational literacy skills essential for success in academic settings.

Through targeted instruction and engaging activities, students will improve their ability to analyze complex texts, expand their academic vocabulary, and communicate effectively in spoken and written English. The course is teacher-recommended and tailored to support students preparing for success on Standards of Learning (SOL) assessments and beyond.

Key Features:
• Systematic instruction in phonics, fluency, and comprehension
• Strategies for academic vocabulary development
• Practice with analyzing and responding to grade-level texts
• Focus on oral language skills to enhance classroom participation

Transitions: Transitions

Transitions is a year-long course designed specifically for Newcomer English Learners or those transitioning out of the Newcomer program to fulfill their middle school grade level English credit. This course provides an accessible and supportive environment where students develop foundational English language skills while engaging with grade-level content in reading, writing, speaking, and listening.

Using scaffolds, visual aids, and language acquisition strategies, students will explore a variety of literary and informational texts aligned with the grade level English curriculum. Emphasis will be placed on building academic vocabulary, improving sentence structure, and mastering key components of English grammar. Students will also develop critical thinking and analytical skills through class discussions, projects, and written assignments tailored to their language proficiency levels.

Throughout the course, students will work on:
• Reading comprehension strategies for fiction and nonfiction texts.
• Writing coherent paragraphs and essays, with a focus on structure and clarity.
• Speaking and listening skills through collaborative activities and presentations.
• Language development to support success in other academic courses.

Family and Consumer Sciences

RN6FAC: Family and Consumer Science Exploratory I

This course provides a foundation for managing individual, family, career, and community roles and responsibilities. Students focus on areas of individual growth, goal setting, strengthening families, and awareness of personal safety and wellness. They also explore saving and spending practices, clothing care, food preparation, positive and caring relationships with others; and careers.

WF1110: Introduction to Culinary Arts

The Introduction to Culinary Arts curriculum provides students with opportunities to explore career options and entrepreneurial opportunities within the food service industry. Students investigate food safety and sanitation, explore culinary preparation foundations, practice basic culinary skills, explore diverse cuisines and service styles, investigate nutrition and menu development, and examine the economics of food.

Credits	1.0
Prerequisites	None

WF1130: Nutrition and Wellness

Students enrolled in Nutrition and Wellness focus on making choices that promote wellness and good health; analyzing relationships between psychological and social needs and food choices; choosing foods that promote wellness; obtaining and storing food for self and family; preparing and serving nutritious meals and snacks; selecting and using equipment for food preparation; and identifying strategies to promote optimal nutrition and wellness of society. Students will determine career options in the field of food science, nutrition and wellness.

Credits	1.0
Prerequisites	None

WF1250: Honors Food Science and Dietetics

Through laboratory and other practical experiences, students will develop a deeper appreciation for the food system and the impact of science on the food and nutrition industries. Students will explore the food sources; the science and technology of food production and processing; and implications for individual and global health and wellness.

Credits	1.0
Prerequisites	Nutrition and Wellness or Introduction to Culinary Arts
Corequisites	Chemistry

WF7006: Family and Consumer Science Exploratory II

Students focus on individual development, maintain their personal environments, apply nutrition and wellness practices, manage consumer and family resources, create textile, fashion, and apparel products, and explore careers related to Family and Consumer Sciences such as child care.

WF8006: Family and Consumer Science Exploratory III

Students experience in-depth studies of nutrition and wellness, food preparation, relationships, personal environments; textiles, fashion and apparel, consumer resources, child development and care, and leadership service in action.

Health & Medical Sciences

HS1100: Introduction to Health & Medical Sciences

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.

Credits	1.0
Prerequisites	None

HS1200: Health Informatics

Students will have the opportunity to explore the importance of safeguarding electronic healthcare information. Students will be introduced to the various technologies and trends that affect the healthcare industry to include the history of health information technology (IT) in the United States, the Electronic Health Record (EHR), ethical and privacy issues, and cybersecurity and data breaches.

Credits	1.0
Prerequisites	Introduction to Health & Medical Sciences

HS2100: Medical Terminology

Medical Terminology is designed to help students learn health care language. Topics are presented in logical order, beginning with each body system's anatomy and physiology and progressing through pathology, diagnostic procedures, therapeutic interventions and finally pharmacology. Students learn concepts, terms and abbreviations for each topic.

Credits	1.0
Prerequisites	Introduction to Health & Medical Sciences is recommended

HS3100: Principles of Biomedical Science

In the introductory course of the Biomedical Science program, students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems.

Credits	1.0
Prerequisites	Enrolled in the Governor's Health Sciences Academy for Biotechnology Research and Development

HS3110: Human Body Systems

Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis. Exploring science in action, students build organs and tissues on a skeletal manikin, use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases.

Credits	1.0
Prerequisites	Successful completion of Principles of Biomedical Science

HS3120: Medical Interventions

Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

Credits	1.0
Prerequisites	Successful completion of Human Body Systems

HS3150: Honors Biomedical Innovation

In the final course of the Biomedical Science sequence, students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students address topics ranging from public health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent design project with a mentor or advisor from a university, medical facility, or research institution.

Credits	**1.0**
Prerequisites	**Successful completion of Medical Interventions**

HS4100: Health Assisting Careers

Students explore opportunities in the health care field by developing basic skills common to several assisting careers. They study body structure and function, principles of health, microbes, and disease, and an overview of the health and patient care system. Supervised work-based learning may begin as part of the course in health care setting and is managed by the health and medical sciences education teacher.

Credits	**1.0**
Prerequisites	**Medical Terminology**

HS4160: Honors Nurse Aide I

Course is offered as an occupational preparation course beginning at the eleventh-grade level, 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.

Credits	**1.0**
Prerequisites	**Introduction to Health and Medical Sciences**

HS4460: Patient Care Technician

Offered as an occupational course after the completion of Nurse Aide at the 12th-grade level, Patient Care Technician emphasizes the study of nursing occupations as related to the healthcare system. Students study normal growth and development, simple body structure and function, medical terminology, and are introduced to microbes and disease. Upon completion of the course, students will have mastered the skills needed to perform electrocardiograms (ECGs); execute basic medical, lab, and exam procedures; draw blood; and provide basic patient/client care. Students will be eligible to take a national certification exam to become certified phlebotomy technicians, certified ECG technicians, and certified patient care technicians. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Credits	**0.5**
Prerequisites	**Nurse Aide I**

HS5100: Medical Laboratory Technology I

Students gain foundational knowledge and skills appropriate for a variety of medical-related career paths in the field of medical technology. Students 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.

Credits	**1.0**
Prerequisites	**Medical Terminology**

HS5150: Honors Medical Laboratory Technology II

Students will build on the foundational knowledge and skills obtained in Medical Laboratory Technology I. 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.

Credits	**1.0**
Prerequisites	**Medical Laboratory Technology I**

Health and Physical Education

MC0071/MC0072: IB Sports, Exercise and Health Science

This is an experimental science course that blends academic study with practical and investigative skills. It focuses on the science that underpins physical performance and provides students the opportunity to apply these principles.

The disciplines covered include anatomy and physiology, biomechanics, psychology and nutrition, all studied in the context of sport, exercise and health.

Students engage in both laboratory and field investigations, and the course considers issues of global relevance and ethics in sport, exercise and health.

Credits	0.5
Prerequisites	Pre-IB Chemistry

MC4010: History of Dance

The course is designed to cover the history of dance throughout various historical eras, as dance is a direct reflection of what is happening in society. Students will discuss how world events (wars, immigration, cultural practices and environment) help to shape the world of dance today. The course will also look at the codified methods of analyzing dance in terms of special awareness and the use of muscles, and how the bones and muscles work in conjunction to create unique human movement. The class will conclude with rhythmic analysis of music and rhythms and working with musical scores to create choreography. This is a required elective for the Dance Magnet.

Credits	0.5
Prerequisites	Techniques of Dance I & II or both Dance/P.E. I & II

PE0169: Health I

This class integrates a variety of health concepts, skills, and behaviors to plan for lifetime health and wellness. These include awareness and consequences of risky behaviors, disease prevention, overall wellness, and identification of community health resources. Students are encouraged to have an active role in creating a healthy lifestyle for themselves, their families, and their community, During this course students will fulfill the graduation requirements or “Hands-on CPR” training.

Credits	0.5
Prerequisites	None

PE0169: Health I- Online

This course is an 8th-block class outside of regular school hours. Health I- Online is an asynchronous course that integrates a variety of health concepts, skills, and behaviors to plan for a lifetime of health and wellness. These include awareness and consequences of risky behaviors, disease prevention, overall wellness, and identification of community health resources. Students are encouraged to take an active role in creating a healthy lifestyle for themselves, their families, and their community. To fulfill the graduation requirement, students must complete an in-person, hands-on CPR assessment.

Credits	0.5
Prerequisites	None

PE0269: Health II/Driver Education

This course is a combination of Health II and Driver Education. Health II continues to build upon the health and wellness concepts introduced in Health I. Community health and health-enhancing behaviors continue to be stressed. The driver education course is designed to provide students with a detailed understanding of the fundamentals of driving and to foster responsible driving attitudes and behaviors. This course requires parents/guardians and students to attend a 90-minute Partners for Safe Teen Driving presentation; parents and guardians can opt out.

Credits	0.5
Prerequisites	Health I

PE0269: Health II-Online

This course is an 8th-block class outside of regular school hours. This is strictly a health course. Driver Education WILL NOT be taught in this class. Health II-Online is an asynchronous course that builds upon the health and wellness concepts introduced in Health I. Community health and health-enhancing behaviors continue to be stressed.

Credits	0.5
Prerequisites	Health I

PE0300: Sports Medicine

This course covers basic anatomy, common athletic injuries, and how to care for these injuries using taping techniques, exercise and various modalities. This class will help further education in the field of medicine and assist students in their career choice. There is a nominal supply fee for each semester. This is an elective course.

Credits	0.5
Prerequisites	Health I and Health II

PE1409: Individualized Physical Education I

This course is designed to allow students with physical limitations to participate in a modified lifetime activities physical education curriculum. The course is designed to provide the necessary modifications for each student that will allow for maximum participation in physical education based on individual limitations. The five health-related fitness components along with the concepts and principles associated with the biomechanics of movement and physical activity, nutrition, energy balance, and social development will be stressed. Students will create a personal fitness plan based on individual needs and limitations with application of learned fitness concepts and principles within the plan.

Credits	0.5
Prerequisites	**Physician Modified Activity Form required as well as collaborative identification and/or recommendation by IPE staff, school counselors, and physical education staff**

PE1609: Wellness & Fitness Management I

This is an online opportunity to utilize Polar wearables to track your fitness activities/exercises for physical education credit. All instruction is online, and students are expected to complete the course with limited teacher interaction. This course requires self-discipline and time-management skills. The course is identified as an 8th block class to be taken outside of regular school hours. The five health-related fitness components, concepts, and principles associated with the biomechanics of movement and physical activity, nutrition, energy balance, and social development will be stressed. Students will be required to upload videos of themselves performing Fitness gram fitness tests and weekly exercise selfies. Fees are possible if the equipment is damaged during use.

Credits	0.5
Prerequisites	**Student AND Parent MUST attend informational meeting to obtain Polar device before class starts; Meeting time and location TBA.**

PE1809: Physical Education I

In PE 1, students focus on improving their physical abilities and understanding the importance of a healthy lifestyle. They will explore various physical activities like fitness exercises, dance, and sports. Students will learn fundamental skills and strategies applicable to different activities. They will also gain specialized knowledge about movement concepts. In addition to physical skills, students discuss topics like energy balance and nutrition to maintain good health and prevent diseases. They will assess their performance and create a personal fitness plan to enhance motor skills and strategies. The goal is to develop habits for a lifetime of physical activity.

Credits	0.5
Prerequisites	None

PE2409: Individualized Physical Education II

This course is designed to allow students with physical limitations to participate in a modified lifetime activities physical education curriculum. The course is designed to provide the necessary modifications for each student that will allow for maximum participation in physical education based on individual limitations. This class will continue to build upon the wellness & fitness-based concepts learned in the first-tier physical education courses. The anatomical basis of movement along with the concepts and principles associated with motor skill development, fitness-planning, nutrition, and energy balance continue to be stressed. Students will update their personal fitness plan based on knowledge gained to reflect any changes in individual needs and interests.

Credits	0.5
Prerequisites	**Physician Modified Activity Form AND Individualized Physical Education I as well as collaborative identification and/or recommendation by IPE staff, school counselors, and physical education staff**

PE2609: Wellness & Fitness Management II

This is an online opportunity to utilize Polar wearables to track your fitness activities/exercises for physical education credit. All instruction is online, and students are expected to complete the course with limited teacher interaction. This course requires self-discipline and time-management skills. The course is identified as an 8th block class to be taken outside of regular school hours. The five health-related fitness components, concepts, and principles associated with the biomechanics of movement and physical activity, nutrition, energy balance, and social development will be stressed. Students will be required to upload videos of themselves performing Fitness gram fitness tests and weekly exercise selfies. Fees are possible if the equipment is damaged during use.

Credits	0.5
Prerequisites	**Wellness & Fitness Management I, Physical Education I, or Outdoor Education I, and; Student AND Parent MUST attend an informational meeting to obtain Polar device before class starts; Meeting time and location TBA.**

PE2809: Physical Education II

Students in PE 2 will continue to improve their competence in lifelong physical activities. They will plan, implement, assess, and adjust their personal fitness plans. By the end of this grade, students will be well-prepared to lead active and healthy lifestyles.

Credits	0.5
Prerequisites	**Physical Education I**

PE3100: Advanced Team Sports

This course is designed to develop specific sports skills and help students learn advanced strategies associated with team play. Apply rules and regulations by officiating games in each sport. Sports may include, but are not limited to, team handball, hockey, soccer, softball, volleyball and basketball. Students will also develop an awareness of career opportunities in the fields of coaching and officiating. Overall fitness, sportsmanship and leadership will be areas of emphasis. This is an elective course.

Credits	0.5
Prerequisites	**Two semesters of physical education and recommendation of physical education staff**

PE3200: Personal Fitness I

Personal Fitness focuses on development of fitness through activities such as team and individual sports; basic, step and boxer aerobics; weight training; circuit training; and power walking. Students will also develop personal fitness goals related to nutrition, weight management and disease prevention. This is an elective course.

Credits	0.5
Prerequisites	**Two semesters of physical education and recommendation of physical education staff**

PE3210: Personal Fitness II

Personal Fitness II continues to focus on development of fitness through activities such as team and individual sports; weight training; circuit training; and fitness challenges. Students will also develop personal fitness goals related to nutrition, weight management and disease prevention. This is an elective course.

Credits	**0.5**
Prerequisites	**Personal Fitness I, 2 semesters of physical education, & recommendation of physical education staff**

PE3300: Dance/Fitness

Emphasis will be placed on various types of dance and fitness related activities. Personal fitness goals will be developed and implemented. Nutrition, weight training, aerobics and disease prevention will be included. This is an elective course.

Credits	**0.5**
Prerequisites	**Two semesters of physical education and recommendation of physical education staff**

PE3403: Outdoor Education I

This class will introduce students to wellness and fitness-based concepts through participation in the following outdoor activities: hiking, biking, canoeing, cooperative games, orienteering, camping, and archery. The five health-related fitness components along with the concepts and principles associated with the biomechanics of movement and physical activity, nutrition, energy balance, and social development will be stressed. This course is held at Newport News Park with a maximum enrollment of 13 students per class.

Credits	**0.5**
Prerequisites	None

PE3413: Outdoor Education II

This class will continue to build upon wellness and fitness-based concepts through participation in the following outdoor activities: hiking, biking, canoeing, cooperative games, orienteering, camping, and archery. The anatomical basis of movement along with the concepts and principles associated with motor skill development, fitness-planning, nutrition, and energy balance continue to be stressed. This course is held at Newport News Park with a maximum enrollment of 13 students per class.

Credits	**0.5**
Prerequisites	**Outdoor Education I**

PE3510, PE3520, PE3530: Techniques of Dance I, II & III

Students will receive technical training in Modern Dance, Ballet and Jazz. Emphasis is given to the performing aspect of dance. As students proceed to level II, they will explore anatomy and injury prevention as relevant to the dancer. Students will begin to explore basic choreography concepts in level III.

Credits	**0.5**
Prerequisites	**Instructor placement**

PE3560: Honors Dance Company

Students will focus on creation and rehearsal of pieces for performance both in school and in the community. Placement is based on audition only. Students may be concurrently enrolled in another technical level.

Credits	**0.5**
Prerequisites	**Instructor placement**

PE3580: Honors Choreography

Students will learn the choreographic group devices during the first semester and individual choreographic projects during the second semester, while still maintaining technique learned in previous levels.

Credits	**0.5**
Prerequisites	**Instructor placement**

PE6000, PE7000, PE8000: Middle School Physical Education & Health

The middle school physical education curriculum provides students the opportunity to acquire the knowledge, processes, and skills to become physically educated, physically fit, and responsible in their physical activity choices and behaviors. Students will engage in meaningful physical activity in team sports, lifetime sports, and recreational activities that promote personal enjoyment, challenge, and a health-enhancing level of personal fitness. The health education curriculum addresses health, personal development, risky behaviors and safety topics for the middle school population. The program is designed to help students understand how to achieve and maintain good health for a lifetime. The Family Life curriculum is taught during the health classes.

Prerequisites	None

PE6410, PE7410. PE8410: Middle School Individualized Physical Education

This course is designed to allow students with physical limitations to participate in a modified physical education curriculum. The course is designed to provide the necessary modifications for each student that will allow for maximum participation in physical education based on individual limitations. The middle school physical education curriculum provides students the opportunity to acquire the knowledge, processes, and skills to become physically educated, physically fit, and responsible in their physical activity choices and behaviors. Students will engage in meaningful physical activity in team sports, lifetime sports, and recreational activities that promote personal enjoyment, challenge, and a health-enhancing level of personal fitness. The health education curriculum addresses health, personal development, risky behaviors and safety topics for the middle school population. The program is designed to help students understand how to achieve and maintain good health for a lifetime.

Prerequisites	None

International Baccalaureate (IB)

AR4100, AR4200: IB Visual Arts I & II

The Visual Arts course enables students to engage in both practical exploration and artistic production, and in independent contextual, visual and critical investigation. The course is designed to enable students to study visual arts in higher education and also welcomes those students who seek life enrichment through visual arts. All students are encouraged to develop their creative and critical abilities and to enhance their knowledge, appreciation and enjoyment of visual arts. Students must complete research and writing assignments as well as hands-on work. This is an IB elective course.

Credits	0.5
Prerequisites	**Teacher recommendation and portfolio demonstrating serious interest and proficiency in art production**

BU1030, BU1040: IB Information Technology in a Global Society I & II

Information Technology in a Global Society is the study and evaluation of the impact of information technology on individuals and society. It explores the advantages and disadvantages of the use of digitized information at the local and global level. It uses an integrated approach, encouraging students to make informed judgments and decisions about the role of information and communication technologies in contemporary society. This is an IB elective course.

Credits	0.5
Prerequisites	None

BU1530, BU1540: IB Business & Management I & II

The Business and Management course is designed to develop an understanding of business theory and an ability to apply business principles, practices and skills. It aims to encourage a holistic view of the world of business by promoting an awareness of social and ethical factors in the actions of organizations and individuals in those organizations. Developing international mindedness and an awareness of different cultural perspectives provides students the skills to think critically and appreciate the nature and significance of change in a local and global context. This is an IB elective course.

Credits	0.5
Prerequisites	None

EE0510, EE0520: IB Theatre I & II

The Theatre course is designed to encourage students to examine theatre in its diversity of forms from around the world. This may be achieved through a critical study of the theory, history and culture of theatre and will find expression through workshops, compositions, or scripted performance. Students will come to understand that the act of imagining, creating, presenting and critically reflecting on theatre in its past and present contexts embodies the individual and social need to investigate and find explanations for the world around us. The theatre course emphasizes the importance of working individually and as a member of an ensemble. Students are encouraged to develop the organizational and technical skills needed to express themselves creatively in theatre. This is an IB elective course.

Credits	0.5
Prerequisites	None

EE0710, EE0720: IB Film I & II

Through the study and analysis of film texts and exercises in film-making, the film course explores film history, theory, and socio-economic background. The course develops students' critical abilities, enabling them to appreciate the multiplicity of cultural and historical perspectives in film. To achieve an international understanding within the world of film, students are taught to consider film texts, theories and ideas from the points of view of different individuals, nations and cultures. This is an IB elective course.

Credits	0.5
Prerequisites	None

EN 3310, EN 4310: IB Language a: Literature

IB English is the study of the language of the country where the course is taught. It is a two-year course that seeks to facilitate the clear expression of ideas; to aid clear, precise presentation of argument; and to assist in the understanding of both oral and written discourse. Its aims are to promote an international perspective through the comparative study of works from the students' own culture and other cultures and to develop understanding and appreciation of the relationships between different works including detailed and critical analysis of written text. All SOL requirements are met and students take the both the English EOC Reading and the Writing SOL Test to earn verified credits toward graduation.

Credits	0.5
Prerequisites	Satisfactory completion of English 9 and 10

Junior Year: MA4140, MA4150; Senior Year: MA4240, MA4160: IB Mathematics: Analysis and Approaches SL and HL

This two-year course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series at both SL and HL, and proof by induction at HL.
The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, Mathematics: Analysis and Approaches has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments.

Credits	0.5
Prerequisites	Honors Math Analysis

Junior Year: MA4440, MA4450; Senior Year: MA4460, MA4640: IB Mathematics: Applications and Interpretations SL and HL

This two-year course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series at both SL and HL, and proof by induction at HL.
The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, Mathematics: Analysis and Approaches has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments.

Credits	**0.5**
Prerequisites	**Honors Algebra II**

MC0039, MC0049: IB Theory of Knowledge

Theory of Knowledge is a key element in the educational philosophy of the International Baccalaureate. The course is philosophical in the sense that it is meant to encourage students to acquire a critical awareness of what they and others know through analyzing concepts and arguments and the basis of value judgments. It aims to develop a personal mode of thought based on critical examination of evidence expressed in rational arguments. This is a required course for all IB Diploma students.

Credits	**0.5**
Prerequisites	**None**

MC0050, MC0060: IB Philosophy I & II

The emphasis of the Philosophy course is on “doing” philosophy. It focuses on developing students’ ability to formulate arguments in a sound and purposeful way, and encourages students to develop intellectually independent and creative ways of thinking. A concern with clarity of understanding lies at the core of the philosophy course. This clarity is achieved through critical and systematic thinking, careful analysis of arguments, and the study of philosophical themes and a close reading of philosophical texts. Through this examination of themes and text the philosophy course allows students to explore fundamental questions that people have asked throughout human history. This is an IB elective course.

Credits	**0.5**
Prerequisites	**None**

MU4310, MU4320: IB Music I & II

Through the music course students develop their knowledge and potential as musicians, both personally and collaboratively. Involving aspects of the composition, performance and critical analysis of music, the course exposes students to forms, styles and functions of music from a wide range of historical and socio-cultural contexts. Students create, participate in, and reflect upon music from their own background and those of others. They develop practical and communicative skills which provide them with the opportunity to engage in music for further study, as well as for lifetime enjoyment. This is an IB elective course.

Credits	**0.5**
Prerequisites	**Students must have some music background**

SC1400: IB Environmental Systems

IB Environmental Systems provides students with a coherent perspective on the environment; one that is essentially scientific and that enables them to adopt an informed and responsible stance on the wide range of pressing environmental issues that they will inevitably come to face.

Credits	**0.5**
Prerequisites	**Satisfactory completion of Biology and Chemistry in grades 9 and 10**

SC2410, SC2420, SC2400: IB Biology

IB Biology studies the fundamental characteristics of living matter from the molecular level to the vertebrate organism including cells, chemistry of life, genetics, ecology, human health and physiology, nucleic acids and proteins and plant studies.

Credits	0.5
Prerequisites	Satisfactory completion of Biology and Chemistry in grades 9 and 10

SC3400, SC3410, SC3420: IB Chemistry

IB Chemistry investigates stoichiometry, atomic theory, bonding, energetics, kinetics, oxidation and reduction and organic chemistry.

Credits	0.5
Prerequisites	Satisfactory completion of Biology and Chemistry in grades 9 and 10

SC4410, SC4420, SC4430: IB Physics

IB Physics is an in-depth study of the laws of physics experimental skills, mechanics, optics, sound, electricity, magnetism, atomic and nuclear physics, thermodynamics and biomedical physics.

Credits	0.5
Prerequisites	Satisfactory completion of Biology and Chemistry in grades 9 and 10

SS2310, SS3310: IB History of the Americas

The course aims to promote the acquisition of knowledge and understanding of the past that will serve both as a basis for the development and practice of appropriate skills, and for a better understanding of the present. It seeks to develop an awareness of continuity, change, and different interpretations of the past. Emphasis is placed on studies of the Americas from Canada to South America and 20th century world topics. This course will satisfy the U.S. History credit requirement for the Standard or Advanced Studies diploma. All students take the U. S. History SOL test to earn a verified credit toward graduation.

Credits	0.5
Prerequisites	Satisfactory completion of World History or World Geography and Government in grades 9 and 10

SS5310: IB Psychology

Psychology is the systematic study of human behavior and mental processes. Students can expect to develop an understanding of how psychological knowledge is generated, developed, and applied; resulting in a greater appreciation for the diversity of human behavior. This is an IB elective course.

Credits	0.5
Prerequisites	None

SS5510, SS5520: IB Social & Cultural Anthropology I & II

The Social and Cultural Anthropology course offers students the opportunity to explore and understand humankind in all its diversity through the comparative study of cultures and human societies. It places special emphasis on comparative perspectives that challenge cultural assumptions. Anthropology fosters the development of citizens who are globally aware and ethically sensitive. Students in Social and Cultural Anthropology I will come to appreciate how anthropology contributes to an understanding of contemporary issues. This is an IB elective course.

Credits	0.5
Prerequisites	None

Spanish – WL0700, French – WL1700, German – WL2700: IB Language B

IB Language B is the study of a world language. Available languages are French, German and Spanish. The aim of the course is to develop speaking, listening, reading and writing skills in the target language and to prepare students to use the language appropriately in a range of situations and contexts.

Credits	0.5
Prerequisites	Satisfactory completion of levels 1-3 by the end of grade 10

Marketing

MK0100: Marketing

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).

Credits	1.0
Prerequisites	None

MK0350: Honors Strategic Marketing

Students gain knowledge of marketing functions as they relate to supervisory and management responsibilities and develop skills needed for advancement. Students will prepare for advancement in marketing careers and postsecondary education. Advanced Marketing is the advanced cooperative program, which allows students to pursue the development of marketing competencies necessary for advancement in full-time employment or postsecondary education in marketing.

Credits	1.0
Prerequisites	Marketing, Sports & Entertainment Marketing or Fashion Marketing

MK1200: Fashion Marketing

This specialized marketing course is offered for students who have identified an occupational interest in the wholesale or retail marketing of men's, women's, and/or children's clothing and related items. Students will gain basic knowledge of the apparel and accessories industry and the skills necessary for successful employment in the apparel business. Emphasis is given to fashion purchasing and selling, fashion cycles, fashion coordination and sales promotion.

Credits	1.0
Prerequisites	None

MK1300: Sports and Entertainment Marketing

Sports, Entertainment and Recreation Marketing is a specialized course for students with a career interest in the fields of sports, entertainment or recreation. The course is designed to equip students with entry-level competencies in the areas of sponsorship, promotion, advertising, legal contracts, event marketing and communications. In addition, the course work provides students with a fundamental knowledge of global marketing and allows them to apply critical thinking and decision-making skills to current industry case studies. Guest speakers, field trips, short-term shadowing experiences and DECA participation provide relevance to the curriculum.

Credits	1.0
Prerequisites	None

MK1600: Entrepreneurship Education

In this course, students will be introduced to the exciting world of creating, owning, and launching their own businesses. Students will learn concepts and techniques for planning an innovative business and living the entrepreneurial lifestyle. They will learn the skills needed to build and manage a successful 21st century business.

Credits	1.0
Prerequisites	None

MK1750: Honors Advanced Entrepreneurship Education

This course is designed for students who wish to concentrate on advanced strategies for entrepreneurship, building upon concepts introduced in Entrepreneurship Education. The focus of the course is on development of a business plan and small business management. Students will establish, market, and maintain a business.

Credits	1.0
Prerequisites	Entrepreneurship Education

Mathematics

MA1010, MA1111, MA1020, MA1100: Algebra I

Algebra I is the study of linear and quadratic equations and inequalities. Students obtain a deeper understanding of linear functions through analyzing their characteristics, transformations, and modeling applications. Students explore quadratic and exponential functions, investigating characteristics and making connections between algebraic and graphical representations. The course includes a focus on data and statistical literacy. Passing the Algebra I SOL test is required to earn a verified credit toward graduation. Only one math verified credit is required for graduation.

Credits	0.5
Prerequisites	None

MA2010, MA2100, MA2200: Geometry

Students build on and apply their algebraic reasoning through the geometry course. An emphasis is placed on the exploration of geometric relationships including properties of geometric figures, trigonometry, triangle relationships, and coordinate geometry. Students will utilize reasoning and justifying in deductive proofs. Venn diagrams are used to represent set relationships. An Honors course is available. Passing the Geometry SOL test is required to earn a verified credit toward graduation. Only one math verified credit is required for graduation.

Credits	0.5
Prerequisites	Algebra I

MA2300: Algebra, Functions & Data Analysis

The course is designed for students who have successfully completed the standards for Algebra I. Within the context of mathematical modeling and data analysis, students will study functions and their behaviors, systems of inequalities, probability, experimental design and implementation, and analysis of data. Data will be generated by practical applications arising from science, business and finance. Students will solve problems that require the formulations of linear, quadratic, exponential equations or a system of equations.

Credits	0.5
Prerequisites	Algebra I

MA3100, MA3220: Algebra II/Honors Algebra II

Throughout the Algebra 2 course, modeling contextual situations and applying algebraic thinking will be emphasized. The course will solidify a deeper understanding of Algebra I topics. Equation solving advances to absolute value, rational, and radical equations. Additional function analysis expands to include absolute value, radical, rational, and logarithmic functions. Complex numbers are introduced and a focus on data and statistical literacy continues. Students will learn graphing functions through a transformational approach with the development of function families. Only one math verified credit is required for graduation.

Credits	0.5
Prerequisites	Algebra I or Geometry

MA3300: Trigonometry/Elementary Functions

This course includes the study of trigonometric definitions, applications, graphing, and solving equations and inequalities. Emphasis is placed on creating connections between and among right triangle ratios, trigonometric functions, and circular functions. Students' understanding of functions is deepened through polynomial, exponential and logarithmic functions. Students are introduced to analytic geometry through the topics of conics.

Credits	0.5
Prerequisites	Algebra II and Geometry

MA3500: Probability & Statistics

Probability and Statistics is a one-year course designed to introduce students to statistical procedures as they apply to real life applications. Students will study data analysis and production, probability and statistical simulation.

Credits	0.5
Prerequisites	Algebra II

MA4100: Honors Mathematical Analysis

Mathematical Analysis is a year study of pre-calculus material. An emphasis is placed on mathematical proof. The course covers a study of infinite sequences and series, analytic geometry from a vector approach, and algebraic, exponential, logarithmic, and trigonometric functions. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.

Credits	**0.5**
Prerequisites	**Geometry and Honors Algebra II or Trigonometry/Elementary Functions**

MA4171/MA4172: AP Pre-Calculus

AP Precalculus prepares students for other college-level mathematics and science courses. Through regular practice, students build deep mastery of modeling and functions, and they examine scenarios through multiple representations. The course framework delineates content and skills common to college precalculus courses that are foundational for careers in mathematics, physics, biology, health science, social science, and data science.

Credits	**0.5**
Prerequisites	**Algebra II**

MA4200: AP Calculus AB

Calculus AB is a one-year course intended for students who have a thorough knowledge of algebra, analytic and axiomatic geometry, and trigonometry. It includes the study of elementary functions and differential and integral calculus. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.

Credits	**0.5**
Prerequisites	**Mathematical Analysis**

MA4210 (Single block): AP Calculus BC

Calculus BC is a single period one-year course intended for students who have a thorough knowledge of elementary Functions and differential and integral calculus. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive credit and/or advanced standing in college Check with your school counselor for availability.

Credits	**0.5**
Prerequisites	**AP Calculus AB**

MA4300 (Double block): AP Calculus BC

Calculus BC is a two period one-year course intended for students who have a thorough knowledge of algebra, analytic and axiomatic geometry, and trigonometry. All of the Calculus AB topics are included along with additional advanced topics. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Credits	**1.0**
Prerequisites	**Mathematical Analysis**

MA4500: AP Statistics

AP Statistics is a one year study of major statistics concepts and the tools for collecting, analyzing, and drawing conclusions from data. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college. With appropriate recommendation this may be taken concurrently with math analysis.

Credits	**0.5**
Prerequisites	**Math Analysis or Trigonometry/ Elementary Functions**

MA6310, MA6410: Math 6

Students are transitioned from the emphasis placed on whole number arithmetic in the elementary grades to foundations of algebra. This course emphasizes rational numbers. Students will use ratios to compare data sets; recognize decimals, fractions, and percents as ratios; solve single-step and multi-step problems, using rational numbers; and gain a foundation in the understanding of integers. Students will solve linear equations, use algebraic terminology, and write inequality statements. Students will solve problems involving area, perimeter, and surface area, work with π (pi), and focus on relationships of congruence in polygons. Students will continue using the data cycle by applying it to circle graphs and developing concepts regarding measure of center. Ratios are used to compare two quantities and represent proportional relationships as a precursor to the development of the concept of linear functions. An advanced course is also available.

Prerequisites	None

MA7310, MA7410: Math 7

In seventh grade, students enhance their algebraic foundation. This course broadens understanding of rational numbers through exponents, scientific notation, and square roots. Students develop proportional reasoning to solve problems that include scale model, dilations, percentages, and other contextual situations. Moving from solving one step equations in sixth grade, students solve two step equations and inequalities. The concept of functions and their multiple representations is explored. Additional topics in grade seven include proportional reasoning, classifying quadrilaterals, area, surface area and volume of figures. Students will focus on data and statistical literacy. Students who successfully complete Math 7 should be prepared to study Algebra I in grade eight. An advanced course is also available.

Prerequisites	None

MA8410: Math 8 – Transition to Algebra

Students develop understanding of real numbers by exploring subsets of the real number system. Solving equations and inequalities moves from two steps to multi step with variables on both sides. Through linear functions, students learn and determine the domain and range of linear functions. By graphing linear functions, students are introduced to intercepts and connections to multiple representation of data sets. Students will represent univariate and bivariate data through box plots and scatterplots. Building on the understanding from seventh grade, students will find the surface area and volume of more complex three-dimensional figures. Students are introduced to the Pythagorean Theorem and apply it to right triangles.

Prerequisites	None

Military Science

MS1110, MS1120, MS1130, MS1150: Army Military Science I – IV

Four levels of Army Military Science are available and are designed to instill the values of citizenship, service and personal responsibility and to instill a sense of accomplishment. Instruction covers military history, management, leadership and customs and courtesies. Numerous extracurricular opportunities are available to cadet corps members including honorary societies, drill/color guard teams and athletics/physical fitness activities. Enrolled students must maintain acceptable standards of appearance, conduct and academic achievement. Cadets can compete for 3 and 4-year college scholarships. Army Military Science IV is an optional course designed for the Cadet corps. Enrollment is selective and requires senior instructor recommendation.

Credits	1.0
Prerequisites	Senior Instructor recommendation for Army Military Science IV

MS1210, MS1220, MS1230, MS1250: Air Force Military Science I – IV

Four levels of Air Military Science are available and are designed to instill the values of citizenship, service and personal responsibility and to instill a sense of accomplishment. Instruction covers military history, management, leadership and customs and courtesies. Numerous extracurricular opportunities are available to cadet cops members including honorary societies, drill/color guard teams and athletics/physical fitness activities. Enrolled students must maintain acceptable standards of appearance, conduct and academic achievement. Cadets can compete for 3 and 4-year college scholarships. Air Force Military Science IV is an optional course designed for the Cadet corps. Enrollment is selective and requires senior instructor recommendation.

Credits	1.0
Prerequisites	Senior Instructor recommendation for Air Force Military Science IV

MS1310, MS1320, MS1330, MS1350: Naval Military Science I – IV

Four levels of Naval Military Science are available and are designed to instill the values of citizenship, service and personal responsibility and to instill a sense of accomplishment. Instruction covers military history, management, leadership and customs and courtesies. Numerous extracurricular opportunities are available to cadet corps members including honorary societies, drill/color guard teams and athletics/physical fitness activities. Enrolled students must maintain acceptable standards of appearance, conduct and academic achievement. Cadets can compete for 3 and 4-year college scholarships. Naval Military Science IV is an optional course designed for the Cadet corps. Enrollment is selective and requires senior instructor recommendation.

Credits	1.0
Prerequisites	Senior instructor recommendation for Naval Military Sciences IV

Music

MU0100: Mixed Chorus

This course is the high school entry-level course to the vocal music program. Emphasis is placed on developing good vocal tone quality, introduction to reading musical scores, discriminative listening and the study of good choral literature. Students are required to participate in in-school and evening performances as part of the course. In addition, students may be required to audition for district and state music ensembles when appropriate.

Credits	0.5
Prerequisites	None

MU0200, MU0300: Treble Chorus: Tenor, Baritone & Bass Chorus

Chorus instruction stresses the expression of music through the art of singing. The classes include vocal training, instruction in reading vocal music and the study and use of a broad range of music literature. Activities include public performances that will be required as part of each course. In addition, students must audition for district and state music ensembles when appropriate.

Credits	0.5
Prerequisites	Successful completion of middle school chorus or music teacher recommendation

MU0450: A Cappella Choir

A Cappella Choir is a select choir which stresses the expression of music through the art of singing in a large ensemble. Emphasis is placed on the development of tone quality in the voice, blend and balance, sight-reading proficiency, ear training, expansion of range, proper vocal production and the ability maintain three and four part music. Rehearsals and performances outside the regular school day will be scheduled and will be required. Students must participate in formal concerts, audition for district and state ensembles when appropriate, and participate in choral assessment performing level III-V music.

Credits	0.5
Prerequisites	Successful completion of Mixed Chorus or music teacher recommendation (audition required)

MU0550: Show Choir

This course emphasizes musical communication through the use of voice and dance in a large ensemble. Emphasis is placed on vocal tone, blend and balance, the ability to maintain three and four part music while performing choreographed movement. Students will perform custom arranged contemporary music as well as choral literature graded III-VI. Rehearsals and performances outside the regular school day will be scheduled and will be required to fulfill the requirements of the course. Students are required to participate in formal concerts, audition for district and state ensembles when appropriate, and participate in competitions when available.

Credits	**0.5**
Prerequisites	**Successful completion of Treble Chorus or A Cappella Choir, audition or choral teacher recommendation**

MU0650: Honors Vocal Ensemble

Vocal Ensemble emphasizes musical communications through the use of the voice, individually and in small ensembles. Instruction includes ear training and sight singing in addition to advanced vocal techniques to include interpretation of the vocal score. Rehearsals and performances outside the regular school day will be scheduled and will be required. Students must participate in formal concerts, audition for district and state ensembles when appropriate, and participate in choral assessment performing level IV-VI music. Students will be required to create choral compositions based on learned music theory. In addition, students will develop a portfolio of their best work to include demonstration of different genres of music performance.

Credits	**0.5**
Prerequisites	**Successful completion of Treble Chorus, A Cappella Choir, audition or choral teacher recommendation**

MU1100, MU1110, MU1120, MU1130: Intermediate Band: Intermediate Woodwind, Brass, & Percussion

An active band program is available to high school students who wish to develop proficiency on an instrument through class instruction and performance in the school band. Students will develop artistic proficiency through performance of instrumental works at a minimum VBODA grade III that demand solo quality tone and sensitive interpretation with attention to the intricacies of their instrument. Rehearsals are considered as a lab to instructional periods and are scheduled each week during school and for a minimum of 2 weeks in August. The instructional and rehearsal sessions culminate in performances, including concert and marching activities, which are required to fulfill the requirements of the course. Students are required to audition for city, district, and state event ensembles when appropriate.

Credits	**0.5**
Prerequisites	**Successful completion of two years of middle school band or completion of a high school band class and teacher recommendation.**

MU1250: Advanced Band: Advanced Woodwind, Brass, & Percussion

Students will continue instruction on the instrument of their choice focusing on solo quality tone, intonation and technique. Student will develop artistic proficiency through performance of instrumental works at a minimum VBODA grade IV. Rehearsals are considered as a lab to instructional periods and are scheduled each week during school and for a minimum of two weeks in August. The instructional and rehearsal sessions culminate in performances, including concert and marching activities, which are required to fulfill the requirements of the course. Students are required to audition for city, district, and state ensembles.

Credits	**0.5**
Prerequisites	**Successful completion of high school intermediate level or director recommendation.**

MU1350: Honors Symphonic Band

Symphonic Band is the most advanced class in instrumental music artistry. Advanced music literature, VBODA grade V and VI will be studied through performance in a symphonic wind and percussion ensemble of a professional caliber. Rehearsals are considered as a lab to instructional periods and are scheduled each week during the school and for a minimum of two weeks in August. Activities include concert and marching band, to include public performances that are required to fulfill the requirements of the course. In addition, students must audition for city, district, and state ensembles.

Credits	**0.5**
Prerequisites	**Successful completion of high school advanced band class and band director recommendation**

MU1450: Honors Jazz Ensemble

Jazz Ensemble is a course for advanced students interested in a thorough study and performance of modern contemporary music. Rehearsals and performances outside the regular school day will be scheduled and will be required to fulfill the requirements for the course. In addition, students must audition for district and state music ensembles when appropriate. Advanced music literature comparable to VBODA IV-VI will be studied through performance.

Credits	**0.5**
Prerequisites	**Successful completion of high school intermediate woodwind, brass or percussion classes, or equivalent band course, or director recommendation.**

MU2100: Intermediate Orchestra

The orchestra program is designed to help the student develop the knowledge, skills and techniques necessary to express him/herself musically through the medium of a string instrument of the orchestra. Members of the class are expected to perform in the orchestra as a soloist and as a member of small or large ensembles. At least one after-school rehearsal is scheduled each week as a laboratory for the instructional periods. The instructional and rehearsal sessions culminate in concert performances that are required to fulfill the requirements of the course. Minimal performance level expected is VBODA grade III & IV. Students are expected to audition for city and regional events. Study will include music theory and history as appropriate for grade III literature. Students will be required to take a written and performance exam at the end of the semester.

Credits	**0.5**
Prerequisites	**Successful completion of previous orchestra class or orchestra teacher recommendation**

MU2250: Advanced Orchestra

Members of the advanced class are expected to perform in the orchestra as a soloist and as a member of small or large ensembles. At least one after-school rehearsal is scheduled each week as a laboratory for the instructional periods. Instructional and rehearsal sessions culminate in concert performances that are required to fulfill the requirements of the course. Minimal performance level expected is VBODA grade V & VI. In addition, students must audition for city, regional, district and state events when eligible. Study will include music theory and history as appropriate for grade V & VI orchestra literature. Students will be required to take a written and performance exam at the end of the semester and are expected to develop a portfolio of performance material.

Credits	**0.5**
Prerequisites	**Intermediate Orchestra or teacher recommendation**

MU3000, MU3100: Beginning & Intermediate Guitar

The guitar program teaches the fundamentals of music, note reading, and music theory, which are used as the basis of study while finger dexterity is being developed. The more advanced students extend their ability to read music for the guitar in a variety of musical styles. Various picking and strumming styles are developed in addition to different tunings, more difficult chords, and solo guitar selections. Rehearsals and performances outside the regular school day will be scheduled and will be required to fulfill requirements for the course. Beginning Guitar will perform Grade I-III level arrangements. Intermediate level requirement includes Grade II-V arrangements.

Credits	0.5
Prerequisites	Provision of personal instrument requested

MU3250: Advanced Guitar

Advanced students will continue developing prior competencies in musicianship to demonstrate advanced proficiency. Rehearsals and performances outside the regular school day will be scheduled and will be required to fulfill the requirements for the course. Students will be required to perform chamber and solo music as well as personal compositions. Advanced level musical selections range from Grade V-VI level arrangements.

Credits	0.5
Prerequisites	Completion of Intermediate or Guitar Teacher recommendation

MU4109: Music Appreciation

Music Appreciation is a semester course designed for students interested in learning to understand and enjoy music. Students will analyze and listen to recorded music and may be required to attend pre-approved live music performances. Students learn to recognize and describe music using appropriate vocabulary and to make value judgements regarding performances and style.

Credits	0.5
Prerequisites	None

MU4200: AP Music Theory

AP Music Theory continues to emphasize ear training and principles of harmony. Students are expected to write and harmonize melodies in major and minor keys. Musical form is studied through the analysis of music scores and composition and the keyboard capability extends to performance of simple four-part harmony. Discriminate listening and aural analysis will be included. In addition, students will be required to develop a portfolio of “best work” across all content areas. Students prepare for and take the College Board’s Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Credits	0.5
Prerequisites	Music Theory I or teacher recommendation

MU4400: Music Technology

Music Technology is a yearlong course designed for students interested in learning how to use DAW’s (Digital Audio Workstations) in order to create sequence, and mix digital music through the use of samples, interfaces, MIDI and various recording software, they will also examine college and career pathways in Music Technology and study current industry standards of producing, marketing and licensing.

Credits	0.5
Prerequisites	None

MU5100: Musicianship I

Music theory I includes ear training, basic theory, and principles of musicianship and harmony in addition to basic keyboard skills. There are exercises in writing simple rhythmic, melodic and chord progressions and in acquiring proficiency on an instrument of the student’s choice. In addition, students will be required to develop a portfolio of “best work” across all content areas.

Credits	0.5
Prerequisites	None

MU5310, MU5320, MU5330: Piano Performance I, II & III

Piano performance emphasizes accurate keyboard and technical skills, such as scales, arpeggios, and other techniques. This course incorporates concepts of technique, including music theory appropriate to the student. Rehearsals and performances outside of the regular school day will be scheduled and will be required to fulfill requirements of the course. Performance I students will learn and perform Grade I & II arrangements, Performance II students will learn and perform Grade III & IV arrangements, and Performance III students will learn and perform Grade V & VI arrangements.

Credits	0.5
Prerequisites	Teacher recommendation

MU6100: Band Grade 6

Students will begin instruction on a band instrument. Students will demonstrate proper care of the instrument and will be familiar with the technology of the instrument. They will demonstrate basic positions, tone production and fingerings, and will count, read and perform the beginning level of music being studied.

Prerequisites	None

MU6210: Orchestra Grade 6

Students will begin instruction on a string instrument. Students will demonstrate proper care of the instrument and will be familiar with the technology of the instrument. They will demonstrate basic positions, tone production and fingerings, and will count, read, and perform the beginning level of music being studied.

Prerequisites	None

MU7009, MU7010: Chorus Grade 7

Chorus Grade 7 emphasizes fundamental vocal development, traditional notation and the introduction to ensemble singing. This course requires performance, creativity and investigation at a fundamental level.

Prerequisites	None

MU7100, MU7110: Band Grade 7

Students may begin or continue instruction on a band instrument. Students will demonstrate proper care of the instrument and will be familiar with the technology of the instrument. They will demonstrate basic positions, tone production and fingerings, and will count, read, and perform the intermediate level of music being studied.

Prerequisites	None

MU7210, MU7220: Orchestra Grade 7

Students may begin or continue instruction on a string instrument. Students will demonstrate proper care of the instrument and will be familiar with the technology of the instrument. They will demonstrate basic positions, tone production and fingerings, and will count, read, and perform the intermediate level of music being studied.

Prerequisites	None

MU8009, MU8010: Chorus Grade 8

Chorus Grade 8 emphasizes developing good fundamental vocal tone quality, traditional notation, ensemble singing and introduction to discriminative listening. Students are required to participate in performances as part of the course.

Prerequisites	None

MU8100, MU8110: Band Grade 8

Students will continue instruction on a band instrument of their choice. Students will demonstrate proper care of the instrument and will be familiar with the technology of the instrument. They will demonstrate basic positions, tone production and fingerings, and will count, read, and perform the advanced level of music being studied.

Prerequisites	Band Grade 6 and/or 7 or with instructor approval

MU8220, MU8230: Orchestra Grade 8

Students will continue instruction on a string instrument of their choice. Students will demonstrate proper care of the instrument and will be familiar with the technology of the instrument. They will demonstrate basic positions, tone production and fingerings, and will count, read, and perform the advanced level of music being studied.

Prerequisites	Orchestra Grade 6 and/or 7, or with instructor approval

New Horizons Career & Technical Education Center

NH5020, NH5030: Automotive Technology I, II

Auto Technology is a two-year program that prepares students to become entry-level auto technicians. Both years of the program are dual enrolled with Thomas Nelson Community College. Automotive manufacturers and local dealerships sponsor the Automotive Youth Education System at New Horizons. This program offers employment opportunities with dealerships for students who qualify and are selected during the spring semester of their first year. It also ensures that students have ASE master certified instructors, latest service equipment and current model cars so they receive top-quality instruction using the latest technology. Students who are selected for Summer Mentorship opportunities receive hands-on training in service departments of sponsoring dealers under the supervision of experienced technicians.

Credits	3.0

NH5060: Early Childhood Education

Students who are interested in working professionally with young children (e.g., medical, social services, and education) may enroll in the Early Childhood Education (ECE) one-year program. Critical thinking, practical problem solving, and entrepreneurship opportunities within the field of early childhood education are emphasized. Practical experiences (ex: on-site lab, local daycare centers, elementary schools, other institutions) under the supervision of the instructor are required.

Credits	3.0

NH5080, NH5090: Cosmetology I, II

Upon successful completion of this two-year program, students are expected to take the Commonwealth of Virginia State Cosmetology or Barbering examination in order to become licensed practitioners. Students gain daily practical experiences working on other students and during their second year have the opportunity to provide services to patrons in a clinical setting. Cosmetology/Barbering students can also earn SOL credit for use toward the elective credit upon successfully passing the NOCTI Credentialing Exam and/or the State Licensing exam.

Credits	3.0

NH5100, NH5110: Culinary Arts I, II

Culinary Arts is a two-year program that prepares students to enter employment in food service occupations. Instruction focuses on sanitation, nutrition, food preparation, purchasing, and inventory control in addition to food presentation and service. Students plan menus, prepare food and use a variety of kitchen equipment such as ovens, grills, broilers, slicers, grinders, and blenders.

Credits	3.0

NH5160, NH5170: Welding I, II

This is a two-year program in which students receive training along the lines of Huntington Ingalls Industries Newport News Shipbuilding and Liebherr Mining Equipment welding schools. Students learn to set up welding equipment and do minor repairs, participate in building a variety of projects, network with people in the welding field and compete in district and state welding competitions.

Credits	3.0

NH5169/ NH5179: Cybersecurity Technology

Cybersecurity Systems Technology is a one year program where 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 and troubleshoot computers using system tools and diagnostic software. Students will gain a basic understanding of emerging technologies including unified communications, mobile, cloud, and virtualization technologies and explore basic network design and connectivity, network documentation, network limitations and weaknesses, and network security, standards, and protocols. This course prepares students for postsecondary education and training in a successful career in information technology.

Credits	3.0

NH5269, NH5279: Criminal Justice

Students in this one-year program are preparing for many of the exciting, challenging and rewarding careers in the criminal justice field. These opportunities require people who want to operate in both high energy and high-tech fluid environments filled with constant challenges and service commitments. Students will study the history of and types of law enforcement requirements as they gain an understanding of local, state and federal law enforcement departments and jurisdictions. Students will learn about and use some of the newest technology in the criminal justice field as they undertake and engage in crime scene investigations. Some of the finest local state, federal and private sector industry professionals provide classroom presentations and hands on training opportunities. Students will also learn about the court system and corrections.

Credits	3.0

NH5289/NH5299: Electricity and Renewable Energy

Electricity and Renewable Energy is a 1-year program that teaches the basic concepts used by electricians to install, maintain and repair wiring, equipment and fixtures, and navigation of the National Electrical Code Book. Students in this program will also explore alternative renewable energy sources and will learn to install hydrogen fuel cells, solar panels and communication cable and wiring. As our electricity and alternative renewable energy resource needs continue to grow, so will the career opportunities in this field. Because we depend so much on electricity and other energy sources for the way we live and work, careers in this field will always be in high demand.

Credits	3.0

NH5309/ NH5319: Emergency Medical Technician

Emergency Medical Technicians are part of one of the three public safety divisions (EMS, Fire & Law Enforcement). Their job includes the daily routine of dealing with crisis, trauma, hazardous materials, illness, injuries and the training to handle mass causality situations, disaster management and terrorism awareness. The work they do often means the difference between life and death. Although the job can be stressful, EMT's and Paramedics enjoy the challenge and excitement of their jobs and view them as an opportunity to make a real difference. This one-year program meets the sequential elective requirement. Juniors who successfully complete EMT may be invited to return as a senior for EMT II. There are a very limited number of EMT II seats.

Credits	3.0

NH5320, NH5330: Dental Careers I, II

This two-year program prepares students to perform all the tasks of a Dental Assistant. These tasks include exposing, processing and mounting x-rays, preparing materials for various procedures including impressions, removing sutures, placing topical anesthetics and making diagnostic study models for alginate impressions. This program also gives students a foundation to pursue the Dental Hygienist post-secondary degree through a two or four-year college.

Credits	3.0

NH5329/ NH5339: Fire Fighter

Firefighters are one of the three public safety divisions (EMS, Fire & Law Enforcement). The one-year Fire Fighter program introduces students to the exciting career field of Fire Fighting. This would also require the successful completion of EMT-B (see page 25). This course meets the sequential elective requirement. This new program includes the opportunity to earn both the Fire Fighter I and II certifications through the Virginia Department of Fire Programs. Due to this, students will be required to attend some training after school and on some weekends. Attendance at these sessions is mandatory for those pursuing the fire fighter certification.

Credits	3.0

NH5349/NH5359: HVAC I, II

In this one-year program, students are taught the skills necessary for employment in the areas of heating and related climate control systems. Throughout the program, students gain daily practical experience in all aspects of air conditioning and also have the opportunity to receive refrigeration certification.

Credits	3.0

NH5369/NH5379: Medical Assistant

This program prepares students to assist physicians by performing functions related to both business administration and clinical duties of a medical office. Instruction in the business aspect includes: insurance reporting, office accounting, processing medical records, and medical transcription. Clinical instruction includes: preparation of the patient for examination and treatment, routine laboratory procedures, and use of the electrocardiograph machine. Medical Assistant is a one-year program but, it still meets the sequential elective requirement.

Credits	3.0

NH5389/NH5399: Nurse Aide

This course prepares students for employment as a Nurse's Aide/ Home Health Aide, and/or for entry into a practical nursing program as well as other health occupations. Students will receive clinical training in a local nursing home. This is a one-year program. Upon successful completion of the program, students meeting the standard established by the State Board of Nursing and New Horizons are eligible to take the National Nurse Aide Assessment Program examination to become a Certified Nurse Aide in Virginia.

Credits	3.0

NH5409/NH5419: Pharmacy Technician

With our average population increasing in age, prescription medications are rapidly growing in their importance in the health-care industry. Those in the industry on the Virginia Peninsula have identified Pharmacy Technician as their number one area of employment need. In the next several years, job growth for pharmacy technicians will be twice the average for all occupations in Virginia. The New Horizons program will provide students an in-depth exposure to the pharmaceutical industry. It will assist students in becoming skilled in preparing/dispensing prescriptions, compounding medications, preparing intravenous medications, stocking medications and repackaging medications. The Pharmacy Technician Program is a one-year (two-semester class) course. Students will be prepared to take the Virginia Pharmacy Technician Exam and be fully licensed within Virginia.

Credits	3.0

NH5429/NH5439: Veterinary Science

Students in Veterinary Science learn how to respect, safely handle and treat classroom animals. The students come to understand the various breeds and species of animals and are able to identify basic requirements for veterinary care and general health maintenance. The students receive training in handling, grooming, feeding and properly medicating a variety of animals. In addition, animal nutrition, disease and basic first aid are explored. Students also perform the routine technical, maintenance and office duties associated with veterinary work. This one-year program meets the sequential elective requirement.

Credits	3.0

NH5449/NH5459: Physical and Occupational Therapy I, II

Physical/Occupational Therapy is a one year program designed to provide an introduction to the professions of physical and occupational therapy. Students explore the principles and practices of therapists in the health care industry and participate in clinical observation under the direct supervision of a licensed physical and/or occupational therapist. Clinical skills in the area of physical therapy and occupational therapy enable student to gain understanding of rehabilitative care, which is practices throughout the continuum of care and across the life span of individuals. After successful completion of this course, student 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.

Credits	3.0

NH5519/ NH5529 and NH5530: Building Construction I, II & III

This is a one-year program that trains our future builders. Students develop the skills necessary for employment in the construction field. Throughout the program, students gain skills daily through practical experiences using hand and power tools. Students also participate in several building projects, and have partnerships with NASA and York/Poquoson Master Gardeners. Students who successfully complete Construction I & II may be invited to return for Construction III (#8603).

Credits	3.0

NH5559/ NH5569: Computer Programming and Advanced Programming

This industry designed course will allow students to focus on computer science and apply key programming concepts, algorithmic procedures, programming languages, and web based applications. In the Advanced Programming course, students will use object-oriented programming to design and develop database and multimedia programs and applications. The class is dual enrolled for 6 college credits at Thomas Nelson Community College.

Credits	3.0

NH5579/ NH5589/ NH5470: Mechatronics

This is a one-year program offered at Butler Farm Campus through a partnership with TNCC. This course will lead to industry certification and prepares students for manufacturing jobs as electrical/mechanical or mechatronics technicians who design, install, maintain, repair, or troubleshoot manufacturing systems that include electrical and mechanical equipment, instrumentation, controls, and automation. This class is dual enrolled with TNCC for 22 college credits.

Credits	3.0

NH5719/NH5729, NH5720: Auto Body Technology I, II & III

Students in this program are preparing for careers in this field through the use of the latest technologies and state of the art equipment. Throughout the program, students gain daily practical experience by working on vehicles. Each student will become familiar with the latest finishes, from single-stage to multi-stage finishes. Selected students may be eligible for work experiences at local repair facilities. Also, ASE certifications will be available through this program. Students who successfully complete Collision and Repair I & II may be invited to return for Collision and Repair III.

Credits	3.0

NH5769/ NH5779: virtual Machining and Design

Precision Machining is a one year program that provides an introduction to students on using precision tools and instruments to include operation and setup of various types of precision grinders, milling machines, and drill presses. There is also a focus on computer numerical control program writing, setup, and operation for lathe and milling machines. Students who successfully complete the Precision Machining program will be eligible for a VPCC Precision Machining Career Studies Certificate upon graduation.

Credits	3.0

Science

SC1200: Honors Earth Science I

Earth Science is a study of the features and forces of the earth and its place in the solar system and the universe. This course introduces students to such topics as geology, oceanography, meteorology, and astronomy.

Credits	0.5
Prerequisites	None

SC1300: AP Environmental Science

Advanced Placement Environmental Science students will closely follow the program suggested by the College Board. Students will study scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, identify and analyze environmental problems both natural and human-made, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving and/or preventing them. The course is taught at an intensive level of rigor. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Credits	0.5

SC1330: Environmental Science

Environmental Science is designed for students to have the opportunity to increase their environmental literacy and graduate with the knowledge and skills to act responsibly to protect and restore their environment. The goal of this course is to provide students with the skills and content necessary for them to look at current and future environmental issues, both natural and man-made, through a critical lens and to provide a platform to make informed decisions. The course will focus on earth science for one semester and biology one semester and link the concepts of the two disciplines. This course counts as an earth science but not a verified credit.

Credits	0.5
Prerequisites	None

SC2100, SC2200: Biology I

Biology provides a meaningful view of the whole living world and its interrelationships. Topics such as taxonomy, morphology, physiology, molecular biology, biochemistry, genetics, ecology and animal behavior are covered. This course will include dissections of various animals. In the Honors level of the course, environmental education will be emphasized. The students will be required to plan, develop, and complete an experimental science project and report the results in oral and written form. All students take the SOL test for Biology and must pass it to earn a verified credit toward graduation.

Credits	0.5

SC2300: AP Biology

Advanced Placement Biology students will closely follow the program suggested by the College Board. This course emphasizes the principal topics covered in Biology I, however, it is taught at a more intensive level of rigor. Laboratory work is an integral part of the course. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Credits	1.0
Prerequisites	Successful completion of Biology

SC 2319: Biology II – Forensics

Biology II – Forensics is a semester course that combines the concepts of biology and chemistry to explore scientific applications of solving crimes in a comprehensive approach. Students will perform numerous laboratories that will focus on making the connections between science and technology and the impact these two disciplines have on the study of forensic science. Students will use multiple pathways of scientific reasoning to explore the analysis of a crime scene, fingerprints, hair, trace evidence, blood, DNA and case studies. This is a one semester course.

Credits	0.5
Prerequisites	Biology I

SC2339: Earth Science II – Astronomy

Earth Science II provides an understanding of the components of the universe and their interactions focusing more specifically on the solar system. This is a one semester course.

Credits	0.5
Prerequisites	Earth Science I and Algebra I

SC 2349: Earth Science II – Oceanography

Oceanography is a semester course that involves the study of the historical, physical and chemical aspects of the oceans. The course will use the Chesapeake Bay region for an intense study of the coastal ocean. This is a paired semester class and students may enter second semester. Either semester may be paired with any other Earth Science II semester course as scheduling permits. This is a one semester course.

Credits	0.5
Prerequisites	Earth Science I

SC2359: Biology II – Genetics

Biology II - Genetics includes a study of the continuity of life and heredity, cell chemistry, Mendelian laws of heredity, probability, sex-inheritance, selection, chromosomal aberrations, mutations, cytoplasmic inheritance, bacterial and viral genetics, eugenics, genes in populations and genetics of species formation.

Credits	0.5
Prerequisites	Biology

SC2369: Biology II – Marine Biology

Marine Biology is a semester course that involves the study of the oceans and life processes within and around it, and includes the study of plants and animals in the ocean, ecology, and the impact of humans on the ocean. This course will also include dissections of various preserved ocean animals. This is a paired semester class and students may enter second semester. Either semester may be paired with any other Biology II semester course as scheduling permits. This is a one semester course.

Credits	0.5
Prerequisites	Biology I

SC2379: Biology II – Zoology

Zoology is a semester course that provides the student with a survey of invertebrate and vertebrate animals. Zoology students will delve into the diversity of life by studying characteristics, taxonomic relationships, life processes, survival mechanisms, and economic importance among the organisms. This course will include dissections of various animals. This is a paired semester class and students may enter second semester. Either semester may be paired with any other Biology II semester course as scheduling permits. This is a one semester course.

Credits	0.5
Prerequisites	Biology I

SC2389: Biology II – Ecology

Ecology is a semester course that includes studies of the relationship between organisms and the environment, including physical and biological conditions. The course will include experimental studies in the laboratory and the field and data analysis. This is a paired semester class and students may enter second semester. Either semester may be paired with any other Biology II semester course as scheduling permits. This is a one semester course.

Credits	0.5
Prerequisites	Biology I

SC2390: Honors Biology II – Anatomy & Physiology

Anatomy and Physiology is a study of the structure and function of the human body. The course is preparation for advanced biological studies, biomedical nursing, and other science-based careers. Laboratory experiences provide student learning in the following topics: the major body systems; how the body systems work together to provide homeostasis; body functions in the healthy and diseased states; blood typing; muscle action; nerve functioning; and bioethics. Dissections of various preserved animals and organs are an integral part of this course.

Credits	0.5
Recommended Prerequisites	Chemistry I
Prerequisites	Biology I

SC2419: Biology II – Molecular and Cell Biology

The semester-long elective course provides an in-depth study of the molecular basis of cellular processes and the interrelationships in living systems through inquiry-based experimentation and modeling. Students will cover topics including: biochemistry, cell structure and functions, cell membrane structure and transport across the membrane, cellular communication, energetics, molecular genetics, cell organization and movement, and cell cycle. Students will be taught the content, lab techniques and critical thinking skills to be successful in an introductory college biology course. This is a one semester course.

Credits	0.5
Prerequisites	Biology I and Chemistry

SC2429: Biology II - Research & Application Methods for Cellular Processes

The semester-long elective course focuses on research design, applied math and statistics culminating in a student capstone research project with a molecular cell emphasis. Students develop research skills including science based literature research, developing a research proposal, experimentation, data analysis, scientific writing and oral presentation skills. This is a one semester course.

Credits	0.5
Prerequisites	Biology I and Chemistry

SC2600: Biology II – Field Biology

This is an alternative to the typical science course in the classroom setting. It allows the use of “Discovery Science” which describes natural structures of processes as accurately as possible through careful observation and data collection. Student interest and participation is far above that of a typical classroom setting. The students arrive at class eager to go out and discover something new, and then follow that up with further research when they get back to class to answer all of their questions. As one of our biology textbooks expresses it, “Science is a quest to understand nature.” Being outdoors brings that quest to life. Seeing the interactions firsthand brings excitement into learning.

Credits	0.5
Prerequisites	Biology I

SC3100: Chemistry

General Chemistry is a course that explains the basic atomic and molecular processes. Other areas of study include the structure of matter and periodicity of elements, behavior of matter in terms of chemical equilibrium, oxidation-reduction and acid base theory. Students must have successfully completed Algebra I and either Biology or Earth Science SOL before taking this course.

Credits	0.5
Prerequisites	Algebra II or Geometry

SC3200: Honors Chemistry

Honors Chemistry is a course that explains the basic atomic and molecular processes. Other areas of study include the structure of matter and periodicity of elements, behavior of matter in terms of chemical equilibrium, oxidation-reduction and acid base theory. Students must have successfully passed the Biology or Earth Science SOL before taking this course.

Credits	0.5
Prerequisites	Algebra II

SC3300: AP Chemistry

Advanced Placement Chemistry students will closely follow the program suggested by the College Board. Students will attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. Laboratory work will be required at least fifty percent of the time. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Credits	1.0
Prerequisites	Chemistry and Algebra

SC4020: Science and Technology Communications

General Science and Technology Communications will enhance literacy skills in research in all science disciplines. Digital literacy will be developed through the engineering design process as student become problem finders to develop solutions that will be communicated through various multi-media platforms. This course will incorporate science, technology and communication in an innovative and project-based approach to develop literacy, career and life skills.

Credits	0.5

SC4150: Physics I

General Physics I is a two-semester course designed for students who have successfully completed Geometry and are interested in Physics but are not ready for the math requirement of Honors Physics. Students will develop a conceptual understanding of physical principles and how physics plays a role in their everyday lives. Topics covered will include kinematics, dynamics, energy, waves, geometric optics, electricity and magnetism.

Credits	0.5
Prerequisites	Geometry

SC4200: Honors Physics

Honors physics includes a discussion of mechanics, kinetic molecular theory, heat, wave motion, sound, light, electrical and magnetism, and atomic and nuclear physics.

Credits	0.5
Prerequisites	Completion of or current enrollment in Trigonometry or Algebra II/ Trigonometry

SC4310: AP Physics I

Advanced Placement Physics students closely follow the program suggested by the College Board. The curriculum is challenging, but broad in nature. The course is the equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power, and mechanical waves and sound. It will also introduce electric circuits. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Credits	0.5
Prerequisites	No prior coursework in physics is necessary. Completion of geometry and be concurrently taking Algebra II or an equivalent course.

SC4320: AP Physics II

Advanced Placement Physics students closely follow the program suggested by the College Board. The curriculum is challenging, but broad in nature. The course is the equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; and atomic and nuclear physics. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Credits	0.5
Prerequisites	Completed AP Physics I or a comparable introductory course in physics

SC6000: 6th grade science

Sixth Grade Science focuses on the study of force, energy, and matter: the role of the sun's energy on the Earth's systems, water in the environment, air and atmosphere, and basic chemistry concepts. Students will also explore the solar system and natural resource management.

Prerequisites	None

SC6500: Introduction to Scientific Investigation and Stem

Course is designed to introduce students to the scientific investigation process and help them to develop the necessary STEM and science investigation skills to successfully complete an independent science project.

Prerequisites	None

SC7000: 7th Grade Life Science

Seventh Grade Life Science focuses on exploration of cellular organization and classification of organisms, the importance of basic physical and chemical processes of photosynthesis and its importance to life, the relationships among members of an ecosystem, and genetics.

Prerequisites	None

SC8000: 8th Grade Physical Science

Eighth Grade Science focuses on understanding of the nature and structure of matter and the characteristics of energy. Major areas explored are physical and chemical changes, the periodic table, reactions, temperature and heat; sound; light; electricity and magnetism; and work, force, and motion.

Prerequisites	None

Social Studies

SS1100, SS1200: World Geography

The focus of this course is the study of the world's people, places, and environments, with an emphasis on world regions. The knowledge, skills, and perspectives of the course are centered on the world's peoples and their cultural characteristics, landforms and climates, economic development, and migration and settlement patterns. Spatial concepts of geography will be used as a framework for studying interactions between people and their environments. Using geographic resources, students will employ inquiry, research, and technology skills to ask and answer geographic questions. Emphasis will be placed on students understanding and applying geographic concepts and skills to their daily lives. Students who have not earned a verified credit in social studies must take the SOL test for World Geography and pass it to earn a verified credit towards graduation.

Credits	0.5
Prerequisites	None

SS2100, SS2200: World History I

This course will enable students to explore the historic development of people, places, and patterns of life from ancient times until 1500 A.D. in terms of the impact on Western civilization. The study of history rests on knowledge of dates, names, places, events, and ideas. Historical understanding, however, requires students to engage in historical thinking, raise questions, and marshal evidence in support of their answers. Students engaged in historical thinking draw upon chronological thinking, historical comprehension, historical analysis and interpretation, historical research, and decision making. These skills are developed through the study of significant historical substance from the era or society being studied. Students who have not earned a verified credit in social studies must take the SOL test for World History and Geography to 1500 AD and pass it to earn a verified credit towards graduation.

Credits	0.5
Prerequisites	None

SS2120, SS2220: World History II

This course will enable students to examine history and geography from 1500 A.D. to the present, with emphasis on the development of the modern world. The study of history rests on knowledge of dates, names, places, events, and ideas. Historical understanding, however, requires students to engage in historical thinking, raise questions, and marshal evidence in support of their answers. Students engaged in historical thinking draw upon chronological thinking, historical comprehension, historical analysis and interpretation, historical research, and decision making. These skills are developed through the study of significant historical substance. Students who have not earned a verified credit in social studies must take the SOL test for World History and Geography from 1500 AD to the Present and pass it to earn a verified credit towards graduation.

Credits	0.5
Prerequisites	None

SS2300: AP World History: Modern

AP World History: Modern is an introductory college-level modern world history course. Students cultivate their understanding of world history from c. 1200 CE to the present through analyzing historical sources and learning to make connections and craft historical arguments as they explore concepts like humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation. All students must take the College Board's Advanced Placement Exam and based on their score, may earn college credit and/or advanced standing in college. Students who have not earned a verified credit in social studies must take the SOL test for World History and Geography from 1500 AD to the Present and pass it to earn a verified credit towards graduation. The course may be taken in place of World History or as an elective credit.

Credits	0.5
Prerequisites	None

SS3100: AP Human Geography

AP Human Geography is an introductory college-level human geography course. Students cultivate their understanding of human geography through data and geographic analyses as they explore topics like patterns and spatial organization, human impacts and interactions with their environment, and spatial processes and societal changes. All students must take the College Board's Advanced Placement Exam and based on their score, may earn college credit and/or advanced standing in college. Students who have not earned a verified credit in social studies must take the SOL test for World Geography and pass it to earn a verified credit towards graduation. The course may be taken in place of World Geography or as an elective credit.

Credits	0.5
Prerequisites	None

SS3100, SS3200: Virginia & United States History

The Virginia and United States History course expands upon the foundational knowledge and skills previously introduced to include the historical development of American ideas and institutions from the Age of Exploration to the present. While continuing to focus on political, geographic, and economic history, the standards provide students with a basic knowledge of American culture through a chronological survey of major issues, movements, people, and events in Virginia and United States history. As a foundation to develop historical thinking skills, students will apply social science skills to understand the challenges facing the development of the United States. These skills will support the investigation and evaluation of the fundamental political principles, events, people, and ideas that developed and fostered our American identity and led to our country's prominence in world affairs. Students who have not earned a verified credit in social studies must take the SOL test for Virginia and United States History and pass it to earn a verified credit towards graduation.

Credits	0.5
Prerequisites	None

SS3300: AP United States History

AP U.S. History is an introductory college-level U.S. history course. Students cultivate their understanding of U.S. history from c. 1491 CE to the present through analyzing historical sources and learning to make connections and craft historical arguments as they explore concepts like American and national identity; work, exchange, and technology; geography and the environment; migration and settlement; politics and power; America in the world; American and regional culture; and social structures. All students must take the College Board's Advanced Placement Exam and based on their score, may earn college credit and/or advanced standing in college. Students who have not earned a verified credit in social studies must take the SOL test for Virginia and United States History and pass it to earn a verified credit towards graduation. This course will satisfy the Virginia and US History credit requirement for graduation.

Credits	0.5
Prerequisites	None

SS3400: History in Film

This course focuses on selected topics in history using the medium of film. Students will use historical thinking skills and primary source analysis to understand how history impacts the film industry and how the film industry impacts history. This is an elective course.

Credits	0.5
Prerequisites	None

SS4100, SS4200: Virginia & United States Government

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

Credits	0.5
Prerequisites	None

SS4300: AP United States Government and Politics

AP U.S. Government and Politics is an introductory college-level course in U.S. government and politics. Students cultivate their understanding of U.S. government and politics through analysis of data and text-based sources as they explore topics like constitutionalism, liberty and order, civic participation in a representative democracy, competing policy-making interests, and methods of political analysis. All students must take the College Board's Advanced Placement Exam and based on their score, may earn college credit and/or advanced standing in college. This course will satisfy the Virginia and US Government credit requirement for graduation.

Credits	0.5
Prerequisites	None

SS5100: Introductory Psychology

Introductory Psychology is a beginning study of the subject of psychology. Students are introduced to the scientific method and the core ideas and theories of psychology. Students explore and gain an understanding of the complexities and diversity of human thought and behavior. This is an elective course.

Credits	0.5
Prerequisites	None

SS5300: AP Psychology

AP Psychology introduces students to the systematic and scientific study of human behavior and mental processes. While considering the studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with major units of study, including biological bases of behavior, cognition, development, learning, social psychology, personality, and mental and physical health. Throughout the course, students apply psychological concepts and employ psychological research methods and data interpretation to evaluate claims, consider evidence, and effectively communicate ideas. All students must take the College Board's Advanced Placement Exam and based on their score, may earn college credit and/or advanced standing in college. This is an elective course.

Credits	0.5
Prerequisites	None

SS5400: Sociology

Sociology is the study of group behavior and interactions between people. Student engagement is emphasized through the examination of social problems, case studies, role-plays, cooperative learning activities, simulations, debates, online research, and a variety of activities that will help students develop the skills that they will need to become active citizens. Topics include social structure, deviance, race and ethnicity, gender and age, family, religion, and social change. This is an elective course.

Credits	0.5
Prerequisites	None

SS5610: Introduction to Social Work

This course is designed to foster an interest in the field of social work and introduce students to the history of social work and increase knowledge of the human mind and behaviors. The goal is to increase the pipeline of students interested in pursuing fields related to social work and mental health services in school settings.

Credits	0.5
Prerequisites	Successful completion of psychology or sociology

SS5629: Honors American Foreign Policy

American Foreign Policy provides students with the opportunity to gain insight into the complexities of American foreign policy, the roles of various groups in formulating policy and the major developments in American foreign policy from the end of World War II to the present. This is an elective course. This is a one semester course.

Credits	0.5
Prerequisites	None

SS5630: Practical Law

Practical Law is designed to provide students with a basic knowledge of the law as it applies to citizens of the United States and Virginia. Student engagement is emphasized through the use of problems, case studies, role-plays, cooperative learning activities, simulations, debates, online research, and a variety of activities that will help students develop the knowledge and skills that they will need to make sound decisions and become active and law-abiding citizens in their schools and communities. Topics include criminal law, the legal system, juvenile justice, consumer law, family law, and individual rights and liberties. Students will also study contemporary issues in law related to immigration, intellectual property, terrorism, and the workplace. This is an elective course.

Credits	0.5
Prerequisites	None

SS5680: African American History

This course is a survey of African American history from the origins of the Trans-Atlantic Slave Trade to modern day. Students will analyze the social, economic, and political effects of key persons and events, as well as refine skills in research, analysis, and historical interpretation. This is an elective course.

Credits	0.5
Prerequisites	None

SS5691/ SS5692: AP African American Studies ﷺ Assuming the Board Approves

AP African American Studies is an interdisciplinary course that examines the diversity of African American experiences through direct encounters with rich and varied sources. Students explore key topics that extend from early African kingdoms to the ongoing challenges and achievements of the contemporary moment. All students must take the College Board's Advanced Placement Exam and based on their score, may earn college credit and/or advanced standing in college. This is an elective course.

Credits	0.5
Prerequisites	None

SS5729: Honors International Relations

International Relations includes the study of the nation, state, and international law. Areas studied include Asia, the Middle East, Africa and Latin America. Students also study the history and development of the United Nations, including its structure and problems. This is an elective course. This is a one semester course.

Credits	0.5
Prerequisites	None

SS6000: United States History to 1865

Students will use skills for historical and geographical analysis to explore the early history of the United States and understand ideas and events that strengthened the Union. The standards for this course relate to the history of the United States from pre-colonial times until 1865. Students will continue to learn fundamental concepts in civics, economics, and geography as they study United States history in chronological sequence and learn about change and continuity in our history. They also will study documents and speeches that laid the foundation for American ideals and institutions and will examine the everyday life of people at different times in the country's history through the use of primary and secondary sources.

Prerequisites	None

SS7000: United States History: 1865 to the Present

Students will continue to use skills for historical and geographical analysis as they examine United States history since 1865. The standards for this course relate to the history of the United States from the Reconstruction era to the present. Students will continue to develop and build upon the fundamental concepts and skills in civics, economics, and geography within the context of United States history. Students will use investigation as a foundation to delve into the political, economic, and social challenges facing the nation once it reunited after the Civil War. This foundation provides a pathway to develop an understanding of how the American experience shaped the world's political and economic landscapes.

Prerequisites	None

SS8000: Civics & Economics

Civics and Economics is the foundational course for Virginia and United States Government. It examines the roles citizens play in the political, governmental, and economic systems in the United States. Students will examine the foundational documents and principles around which the constitutions of Virginia and the United States were established; identify the rights, duties, and responsibilities of citizens; and describe the structure and operation of government at the local, state, and national levels. Through the economics standards, students will compare the United States economy to other types of economies and consider the government's role in the U.S. economy. Students will investigate the process by which decisions are made in the U.S. market economy and explain the government's role in it. The standards identify personal character traits, such as patriotism, respect for the law, willingness to perform public service, and a sense of civic duty, that facilitate thoughtful and effective active participation in the civic life of an increasingly diverse democratic society. All students take the SOL test for Civics and Economics.

Prerequisites	None

Special Education

SP0100: Reading Skills

Reading skills is a phonetic reading program for students who are non-readers through fourth grade ability. The program emphasizes decoding and comprehension skills.

Credits	0.5
Prerequisites	Geared to students with intellectual disabilities (ID); placement testing by special education teacher

SP0300: Health & Daily Living

Health and Daily Living is designed for students who are not enrolled in general education courses and read and write at or below fourth grade level. Students will learn information needed to lead a healthy life. Topics covered in the course are the systems of the human body, common safety precautions, first aid techniques, as well as prevention techniques. The course also covers appearance, peer pressure, nutrition and fitness. Drug and Family Life Education are included in this course. Additionally, students will learn about health resources in the community and how to access those resources.

Credits	0.5
Prerequisites	Geared to students with intellectual disabilities (ID)

SP0400: Careers

This course is designed for students who read and write at or below fourth grade level and are not enrolled in general education courses. Students will learn a career-planning process, assess their abilities, analyze those abilities and make realistic decisions regarding career options. Students will be exposed to a variety of career options. They will learn to set goals and follow through with goal attainment. Additionally, students will learn appropriate work behaviors and habits, understand the job application process and participate in the interview process.

Credits	0.5
Prerequisites	Geared to students with intellectual disabilities (ID)

SP0500: Life Skills

Instruction is designed to incorporate functional skills, to promote transfer of skills and to foster the growth of appropriate social skills. Experiences in the prevocational and vocational area in addition to those that increase the students' abilities in independent living are emphasized daily.

Credits	0.5
Prerequisites	Geared to students with intellectual disabilities (ID)

SP0600: Functional Skills

Instruction is designed to incorporate functional skills, to promote transfer of skills and to foster the growth of appropriate social skills. Experiences in the prevocational and vocational area in addition to those that increase the students? abilities in independent living are emphasized daily.

Credits	**0.5**
Prerequisites	**Geared to students with intellectual disabilities (ID)**

SP1000: Strategies

Strategies is designed to teach students techniques that assist them in organizing and processing information. Students learn alternative strategies for recalling details and main ideas, outlining, taking tests, expressive writing, spelling, vocabulary development and time management. These techniques are applied to all content area material so that success is measured by improved performance in all academic areas. This course is appropriate for students in the resource setting.

Grade - 9-12 based on teacher recommendation.

Credits	**0.5**
Prerequisites	**Geared to students with learning disabilities (LD).**

SP1100: English Support

This course is designed for students who are also enrolled in a general education English class. The class reinforces language arts skills and supports deficit areas experienced in general education.

Credits	**0.5**
Prerequisites	**Geared to students with learning disabilities (LD)**

SP1200: Math Support – Algebra I

This course is designed for students who are also enrolled in a general education math class. The curriculum reinforces math skills and supports deficit areas experienced in general education Algebra I classes.

Credits	**0.5**
Prerequisites	**Geared to students with learning disabilities (LD)**

SP1410: Social Studies Skills

Social Studies Skills is a course composed of the following three strands: Geography, U.S. History and Government. The course is designed to ensure that students are exposed to critical information that will make them better informed and more productive citizens. Students in this course are not currently enrolled in general education social studies courses.

Credits	**0.5**
Prerequisites	**Geared to students with intellectual disabilities (ID)**

SP2100: English Skills

This course is designed for students who are not enrolled in a general education English class. The class reinforces language arts skills and supports deficit areas with specialized instruction and a modified curriculum as determined by the Individualized Education Program (IEP).

Credits	**0.5**
Prerequisites	**Geared to students with intellectual disabilities (ID)**

SP2200: Math Support

This course is designed for students who are also enrolled in a general education math class. The curriculum reinforces math skills and supports deficit areas experienced in general education.

Credits	**0.5**
Prerequisites	**Geared to students with learning disabilities (LD)**

SP2210: Math Skills

This course is designed for students who are not enrolled in a general education math class. The class reinforces math skills and supports deficit areas with specialized instruction and a modified curriculum as determined by the Individualized Education Program (IEP).

Credits	**0.5**
Prerequisites	**Geared to students with intellectual disabilities (ID)**

SP2310: Science Skills

Science Skills is a course composed of the following three strands: Life Science, Earth Science and Physical Science. Course objectives are designed to ensure that students are exposed to critical information that will make them better informed and more productive citizens. Students in this course are not currently enrolled in general education science courses.

Credits	0.5
Prerequisites	Geared to students with intellectual disabilities (ID)

SP3000: Personal Life Skills

Instruction in Personal Life Skills assists the student in developing appropriate behaviors for all educational settings. Specific skills essential for social adjustment and social interaction are stressed. Assistance in problem solving, age appropriate social adjustment and selecting realistic life goals is emphasized.

Credits	0.5
Prerequisites	Geared to students with an emotional disability (ED)

SP3320: Practical Assessment Exploration System Lab

Practical Assessment Exploration System (PAES®) provides work and life skill training, vocational work assessment, work exploration, appropriate work behavior development, data collection and student reporting, and an accurate description of student performance & employment potential.

Credits	0.5
Prerequisites	Geared to all students with disabilities

SP3330: Work Experience Program (WE) II

This program is designed to not only expose students to an unpaid work experience, but to give them the competencies necessary to work in the community. Site approval is done through the Transition Specialist, is done in the community, and is with or without a Job Coach.

Credits	0.5
Prerequisites	Geared to students with mild to moderate disabilities; Work Awareness and Transition (School based Enterprise) experience preferred; PAES Lab experience preferred

SP3390: Versability Resources, Inc. (Formally ARC Supported Employment)

VersAbility Resources has work environments that are structured, supervised, and provides on-going employment training. Persons receiving services are persons with intellectual disabilities, developmental delays, and/or other physiological disabilities.

Credits	0.5
Prerequisites	Geared to students with mild, moderate, or severe disabilities; SBE experience preferred; PAES Lab experience preferred; WE II experience preferred; Send completed application to Transition Specialist; Successful interview

SP4120: Project Search

Project SEARCH High School Transition Program is a unique, business-led, one-year, school-to-work program that takes place entirely at the workplace. Total workplace immersion facilitates a seamless combination of classroom instruction, career exploration, and relevant job-skills training through strategically designed internships.

Prerequisites	Geared to students with mild, moderate, or severe disabilities; Eligibility with DARS**; Graduate with an Applied Studies Diploma; Eligible to Re-enroll; Application through Transition Specialist; Successful Interview

STEM Category

BU7100, BU8100: Computer Science 7, 8

This course introduces students to computer science as creators of technology. Students engage in computational thinking and hands-on programming using block-based and introductory text-based languages. Learners design, test, and debug computer programs, explore data visualization, and apply artificial intelligence tools to solve real-world problems. Ethical considerations, data privacy, and the societal impacts of emerging technologies are embedded throughout the course. The design-based learning approach enables students to build technical skills while practicing collaboration and problem solving.

Prerequisites	None

RN6CSC: Computer Science 6

This course introduces students to computer science as creators of technology. Students engage in computational thinking and hands-on programming using block-based and introductory text-based languages. Learners design, test, and debug computer programs, explore data visualization, and apply artificial intelligence tools to solve real-world problems. Ethical considerations, data privacy, and the societal impacts of emerging technologies are embedded throughout the course. The design-based learning approach enables students to build technical skills while practicing collaboration and problem solving.

Prerequisites	None

Technology Education

RN6TEC: Introduction to Technology

Students study technological resources through problem-solving processes and various hands on activities. They relate the impact of technology on society, environment, and culture to future consequences and decisions.

TE0100: Technical Drawing and Design

In this foundation course, students learn the basic language of technical drawing and design, and they design, sketch, and make technical drawings, models, or prototypes of real design problems. The course is especially recommended for future engineering and architecture students.

Credits	1.0
Prerequisites	None

TE0200: Engineering Drawing and Design

Students use a graphic language for product design, technical illustration, evaluation of designs, and engineering drawings. They increase their understanding of drawing techniques learned in the prerequisite course. Students use computers, calculators, and descriptive geometry and adhere to established standards to solve design problems. They work in teams to design solutions for an identified need.

Credits	1.0
Prerequisites	Technical Drawing and Design

TE0350: Honors Architectural Drawing and Design

Architectural Drawing is a course designed to present general principles, practices and techniques of residential and commercial building designs and rendering model making structural details and community planning. Students use computer-aided drawing and design (CAD) equipment and established standards or codes to prepare models for presentation.

Credits	1.0
Prerequisites	Technical Drawing and Design

TE0550: Honors Cybersecurity

Course will provide learners with principles of data and technology that frame and define cybersecurity. Students will gain insight into the importance of cybersecurity and the integral role of cybersecurity professionals. The interactive curriculum will provide a dynamic learning experience where users can explore foundational cybersecurity principles, security architecture, risk management, attacks, incidents, and emerging Information Technology and Information Security technologies.

Credits	1.0
Prerequisites	Computer Network Software Operations

TE1160: Honors Digital Electronics in Aviation

Students use computer simulations to learn about the logic of electronics as they design, test, and actually construct circuits and devices. They apply control system programming and explore sequential logic and digital circuitry fundamentals. Topics in computer circuitry are also presented. This is a Project Lead the Way course.

Credits	1.0
Prerequisites	Principles of Engineering

TE1160: Honors Engineering Design & Development

The knowledge and skills students acquire throughout PLTW Engineering come together in Engineering Design and Development (EDD) as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards, completing EDD ready to take on any post-secondary program or career. This is a Project Lead the Way course.

Credits	1.0
Prerequisites	Honors Digital Electronics in Robotics

TE1170: Honors Digital Electronics in Robotics

Students use computer simulations to learn about the logic of electronics as they design, test, and actually construct circuits and devices. They apply control system programming and explore sequential logic and digital circuitry fundamentals. Topics in computer circuitry are also presented. This is a Project Lead the Way course.

Credits	1.0
Prerequisites	Principles of Engineering

TE1400: Introduction to Engineering Design

In this foundation course students use 3-D computer modeling software as they learn the engineering-design process and solve design problems for which they develop, analyze, and create product models. Students use the engineering design process, applying math, science, and engineering standards to hands-on projects. Students work both individually and in teams to design solutions to a variety of problems using 3D modeling software, and use an engineering notebook to document their work. This is a Project Lead the Way course.

Credits	1.0
Prerequisites	None

TE2200: Digital Visualization

Students will gain experiences related to computer animation by solving problems involving 3D object manipulation, storyboarding, texture mapping, lighting concepts and environmental geometry. They will produce animations that include interdisciplinary projects related to science, engineering and the entertainment industry. A major emphasis will be the production of a portfolio that showcases examples of original student work.

Credits	1.0
Prerequisites	AP Computer Science Principles

TE2350: Honors Modeling & Simulation Technology

Students will explore the use of modeling, simulation, and game development software to solve real-world problems in science, technology, engineering and mathematics (STEM). The activities include evaluating physics simulations, programming games for educational purposes and creating visualization systems with 3D models. Students will develop an understanding of the systems, processes, tools and implications of the field of modeling and simulation technology.

Credits	1.0
Prerequisites	Digital Visualization

TE2400: Principles of Engineering

Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation. This is a Project Lead the Way course.

Credits	1.0
Prerequisites	Introduction to Engineering Design

TE3450: Game Design I

Students will work collaboratively in teams to refine their game design skills as they apply graphic design, animation, audio and writing skills to create innovative games for education and entertainment. This project-based course enhances problem solving, project management, and communication skills through the analysis, design, construction, and critique of interactive games. Students will learn about career opportunities in game design and development and investigate the training and certification requirements. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Credits	0.5
Prerequisites	None

TE3550: Game Design II

Students will work collaboratively in teams to refine their game design skills as they apply graphic design, animation, audio and writing skills to create innovative games for education and entertainment. This project-based course enhances problem solving, project management, and communication skills through the analysis, design, construction, and critique of interactive games. Students will learn about career opportunities in game design and development and investigate the training and certification requirements. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Credits	0.5
Prerequisites	Game Design I

TE7006: Inventions & Innovations

Students make models of significant inventions that have advanced society. After studying these developments, they explore contemporary technological problems facing them, their community, or the world and apply systematic procedures to invent new products or innovations as solutions.

TE8006: Technological Systems

Students combine resources and techniques to create systems, attaining comprehension of how technological systems work. Students will explore, design, analyze, and evaluate technological systems. By simulating systems and assessing the.ir impacts, students gain insight into how to approach the problems and opportunities of a technological world. Students will also explore technology-oriented careers.

Television Production

CM1150: Honors TV & Media Production II

Students will become media producers as they take real-world projects from conception to production. They will continue to develop and master skills that are essential to the industry as they function in various professional roles. In addition, the students will gain both breadth and depth in their abilities with the sophisticated tools and equipment involved in professional media production. They will develop an increased understanding of postsecondary and career pathways and will develop plans and portfolios to help them achieve their goals.

Credits	2.0
Prerequisites	TV & Media Production I

CM1250: Honors Tv & Media Production III

Students will demonstrate mastery of media production knowledge and skills. They will function as media producers by creating original productions as they develop and market programs for target audiences. Students will assemble a professional digital portfolio to advance postsecondary and career goals. Students will assemble a professional digital portfolio to advance postsecondary and career goals. They will investigate the dynamic media production industry and identify opportunities for real world experiences (e.g. , internship, job shadowing). Students will research postsecondary opportunities and formulate strategies for both college and career success.

Credits	2.0
Prerequisites	TV & Media Production II

CM1300: Telecommunications I

Students will learn the theory, and basic to intermediate; fundamentals of broadcast television. From pre-production to post-production, students will be engaged in learning how to properly write scripts and rundowns, and the proper use of video production equipment and non-linear editing systems. This course is also designed to introduce the student to studio production using audio and video equipment in a operational television control room. The student is expected to be efficient in the operation of the audio and video equipment, obtain and understanding of audio-visual production, and understand the responsibility of each audio-visual production position by the end of the course. Students will also learn television directing skills in on “live” television productions. This production course also requires scripting, pre-production and postproduction of recorded presentations for the web and broadcast. Special emphasis is placed on theory and techniques of operation and editing. The course also focuses on mastering technical elements of production and developing a familiarity with the grammar of being a broadcast communicator. Students will participate in hands-on instruction to create a variety of video projects.

Credits	2.0
Prerequisites	None

CM1350: Honors Telecommunications II

Students will build on the foundations learned in Telecommunications I to learn about advanced telecommunication systems. Students participate in hands on instruction in TV and video production, producing and directing. Students will learn how to operate video cameras, video drones, audio and lighting equipment, and professional editing software to create and produce video projects including promotional videos, news packages, commercials and music videos. Through a special partnership with NASA, students produce educational videos for classroom instruction.

Credits	2.0
Prerequisites	Telecommunications I

CM2100: Video & Media Technology

This course offers students an opportunity to study all aspects of video and media productions, from planning and writing for production to operating studio and editing equipment. Students practice various methods of gathering news and information from individuals, research and online resources. In addition, students are introduced to analog and digital principles of film production.

Credits	1.0
Prerequisites	None

CM2200: TV & Media Production I

Students will learn how to think and work like media producers by engaging hands-on production projects. Students will also gain proficiency with the media production process while using industry-standard tools. They will explore jobs and careers in the dynamic and growing industry of television and media production and understand the impact of media and its function as entertainment, persuasion, information and instruction.

Credits	1.0
Prerequisites	Video & Media Technology

The Governor's School for Science and Technology

NH6000: Advanced Chemical Analysis

This course focuses on the fundamental principles and laws of chemistry. Extensive laboratory work will serve as the basic tools for students to explore chemistry topics. The course will provide insights into inorganic and organic chemistry. The students will explore advanced concepts such as kinetics, acid/base chemistry, equilibrium, thermochemistry, and electrochemistry. The course will emphasize problem solving through chemical calculations. Advanced Chemical Analysis is a college-level course with a strong focus on laboratory work. It examines topics typically studied during the first year of college by science majors.

Credits	2.0
Prerequisites	High school Biology & Chemistry, Algebra II/Trig

NH6010: Advanced Biological Analysis

In the fall semester, topics in the field of cell and molecular biology will be addressed, some of which include the roles of biological macromolecules, cellular organization and metabolism, and cellular processes such as communication, reproduction, respiration, and photosynthesis. In addition, mechanisms of inheritance and control of gene expression will be examined, followed by a student of developments in biotechnology. In the spring semester, evolution, phylogeny, and the diversity of living things will be discussed, with a special focus on the anatomy of physiology of plants and animals. The laboratory experience is a major component of the course, allowing students the opportunity to use technologies applied in research as well as medical and forensic laboratories while designing their own experiments and analyzing and interpreting their results. The anatomy and physiology of various vertebrate organ systems will be compared while dissecting animals in the laboratory. Advanced Biological Analysis is a college-level course that examines the topics typically studied during the first year of college by biology majors.

Credits	2.0
Prerequisites	Pre-Calculus; Advanced Chemical Analysis

NH6021, NH6022: Calculus-Based Engineering Physics I & II: Mechanics to Electromagnetism

This is a mathematically rigorous course that investigates the principles of classical mechanics, gravitation, periodic motion, electric and magnetic field theory, AC and DC circuit theory, geometric optics through in-depth discussion, concept development, and inquiry-based experimental laboratory activities. The course also develops problem solving skills which emphasize the importance of inquiry in science and integrates the overarching themes of conservation and symmetry. Laboratory experiments use apparatuses such as dynamic tracks, ballistic pendulums, and different LabPro sensors to investigate fundamental physics theories and mathematical concepts. Computer data acquisition software is utilized to collect, analyze, and graph experimental data. The course encourages hands-on activities, class participation and students taking responsibility for their own learning. Students will be provided many opportunities throughout the course to design and carry out investigations and to analyze and evaluate data. Learning fundamental principles, generalizations, and model building and the ability to apply course material to improve thinking, problem-solving, and decision making are essential general goals. Gaining factual knowledge and developing specific skills, competencies and points of view needed by professionals are important general goals.

Credits	**2.0**
Prerequisites	**Pre-Calculus**
Corequisites	**Enrollment in GSST College Calculus Course**

NH6031, NH6032: Calculus-Based Engineering Physics III & IV: Modern Physics & Applied Physics - Engineering Design Principles

Learning fundamental knowledge of engineering and physics disciplines and the requisite skills to perform research, problem-solve, innovate, and create opportunities in the real world are the overarching goals of this course. Extending the first-year physics material, the course includes investigations in modern physics topics such as relativity, quantum mechanics, and nuclear physics, including, for example, conceptual understanding and practical applications of the wave function, Schrodinger's Equation, and radiation and radioactivity. The course includes also a series of project-based engineering learning experiences to help the student acquire and apply the skills, tools, and best practices of the engineering profession. Learning tools include, for example, industry standard engineering and research modeling and simulation software, hands-on design and troubleshooting of solid-state electronics and digital systems, and industry standard computer-aided-design software, and additive manufacturing fabrication systems. In challenging keystone projects, students are tasked to identify real-world engineering problems or opportunities, to propose and seek client approval for their unique solutions or innovations, then to design, build, and demonstrate their final products. The keystone experiences include professional engagement with research and engineering leaders invited from community organizations such as NASA, SNAME, and the Jefferson Labs.

Credits	**2.0**
Prerequisites	**Calculus-based Engineering Physics I and II, Calculus**

NH6080: College Calculus

This course covers 2 semesters of university-level calculus for scientists and engineers, emphasizing understanding and application. The first semester covers limits and continuity of functions, techniques and applications of differentiation, and introduces integration. The second semester covers applications and advanced techniques of integration, differential equations, sequences and series, and analytical geometry. Upon completion of this course, student will understand both the geometric and rate of change analyses of differential and integral calculus. Students will apply their understanding of calculus to modeling real-world situations mathematically and be able to solve those mathematical models. Successful completion of this course will prepare students to enroll in multivariable calculus/linear algebra.

Credits	**1.0**
Prerequisites	**Pre-Calculus**

NH6090: College Modern Pre-Calculus

This course is an intensive, rigorous approach to mathematics designed to prepare students for college calculus. First semester, students will focus on the algebraic and geometric properties of polynomial, rational, exponential, logarithmic, and trigonometric functions, and engage in discussions about how these models are represented in the real world. Second semester, students will learn the analytic properties of trigonometric functions and geometric conics, as well as learning the properties of polar coordinates, vectors, matrices, parametrics, and sequences and series. The course concludes with an introduction to calculus.

Credits	**1.0**
Prerequisites	**Algebra II/ Trig**

NH6100: Multivarable Calculus/Linear Algebra

In multivariable calculus, students extend their study of calculus from the plane into 3-dimensional space and beyond. After an initial examination of geometry and algebra of 3-space, students will use differential and integral calculus to study the nature of curves and surfaces in 3-space. Topics include linear approximations of curves and surfaces in 3-space, optimization of functions in several variables, and use of integral calculus to study area, volume, and other applications. The semester concludes with an examination of the calculus vector fields. In linear algebra, students use matrix theory to solve systems of linear equations and apply knowledge of the determinant to describe the nature of those solutions. The algebra and applications of linear transformations will be studied in both real and general vector spaces. Students will calculate eigenvalues and eigenvectors of linear transformations and use these to diagonalize linear systems. Applications include best fit functions and solutions of systems of 1st order, linear differential equations.

Credits	**1.0**
Prerequisites	**GSST College Calculus or completion of AP Calculus BC with a score of 5 on the exam, or a score of 4 and permission of the instructor.**

NH6110: Honors Research and Mentorship

Students explore advanced topics in scientific research with an emphasis on scientific literature and methods leading to the preparation of a research proposal in conjunction with their mentorship work. Students will prepare research documents using Mendeley bibliographic software and La Tex for professional documents preparation. Mentorship involves students in concentrated research or project development in firms and laboratories throughout the Tidewater region. Students are supervised by mentors who are scientists, engineers, physicians and other professionals. Students plan, implement, document and present research or projects chosen in consultation with their mentors. Students refine their research and presentation techniques, problem-solving, critical thinking and leadership skills. Students gain proficiency with statistical software including Excel and R for presentation and analysis of data. This course provides students with an opportunity to integrate theory, knowledge and application through a research experience.

Credits	**2.0**
Prerequisites	**Pre-Calculus**

NH6120: Research Methods & Ethics with Statistical Analysis

This course presents fundamental concepts and statistical reasoning underlying scientific research and engineering design. Students will investigate contemporary issues in scientific research while conducting an independent research or engineering design projects outside of class. Course topics include research technical writing, design strategies, ethical research behaviors, use of primary research literature, preparation of a study proposal, completion of supporting documentation required the Tidewater Science & Engineering Fair, and graphical and statistical methods of data analysis. Students will focus on the use of statistical analyses in real-world applications rather than mere computation. Scientific calculators and Excel will be used. Topics include probability, sampling, estimations, regression analyses, confidence intervals, tests for means and proportions, ANOVA and non-parametric tests. Students give oral presentations of their work and present posters at the GSST Science Fair which is judged by professionals in various fields. Students are encouraged to participate in regional, state and international competitions.

Credits	**1.0**
Prerequisites	**None**

NH6150: Differential Equations and Math Methods in Physics

This year long course introduces the methods, theory, and applications of differential equations. The course introduces first-order, second and higher order linear equations, series solutions, linear systems of first order differential equations, and the associated matrix theory.

Credits	1.0
Prerequisites	Successful completion of GSST College Calculus

NH6160: College Applied Calculus

This course introduces limits, continuity, differential and integration of algebraic, exponential and logarithmic functions, and techniques of integration with an emphasis on applications across the interdisciplinary fields. Students will explore these topics in a hands-on way using authentic problem models and scientific calculators.

Credits	1.0
Prerequisites	Algebra II/ Trig

NH6210: Computational Physics

Computer Science Course objectives provide a study of the key concepts in object-oriented programming (Java / Python) and design (data abstraction, data encapsulation, composition, inheritance and code re-use and implementation design techniques), programming constructs (primitives, references, classes, methods and interfaces), evaluating expressions (numeric, string and Boolean), program analysis (testing, debugging, run-time exceptions, pre and post conditions, assertions, analysis of algorithms and numerical representation of integers), data structures (strings, lists, one and two dimensional arrays and their accompanying operations – traversals, insertion and deletion), searching (sequential and binary), sorting (selection, insertion and merge sort) and develop an understanding of the ethical and social issues as it relates to the study of Computer Science. The course is a non-calculus treatment of physics dealing with topics in classical and modern physics. Physics course objectives apply the equations of kinematics to predict the position and the velocity at a later time, Newton's laws of motion to find the acceleration of the objects and to identify other forces in the system, the conservation laws (mechanical energy conservation, and momentum conservation, and angular momentum conservation) to compare the system before and after the interaction, find the solutions of problems involving rectilinear motion, parabolic motion, circular motion, & objects in equilibrium, apply the conservation laws to the solutions of problems involving collisions, conservative & non-conservative forces, understand the fluid mechanics, such as buoyant force and Bernoulli's equation, solve problems involving thermal expansion, heat transfer, thermodynamic processes & the behavior of ideal gases. Second semester course focuses on fundamental principles of physics covering mechanics, thermodynamics, wave phenomena, electricity and magnetism, and selected topics in modern physics.

Credits	2.0
Prerequisites	Algebra II/Trig

NH6220: Computational Science: Engineering Design, Innovation and Entrepreneurship

Learning fundamental knowledge of design innovation and science disciplines and the requisite skills to perform research, problem-solve, innovate, and create opportunities in the real world are the overarching goals of this course. The course includes also a series of project-based learning experiences to help the student acquire and apply the skills, tools, and best practices of the STEM profession. Learning tools include, for example, industry standards and research modeling and simulation software, hands-on design and troubleshooting of solid state systems, and industry standard computer-aided-design software, and additive manufacturing fabrication systems. In challenging keystone projects, students are tasked to identify real-world engineering problems or opportunities, to propose and seek client approval for their unique solutions or innovations, then to design, build, and demonstrate their final products. The keystone experiences include professional engagement with research leaders invited from community organizations such as NASA, SNAME, and the Jefferson Labs.

Credits	2.0
Prerequisites	Computational Physics and Pre-Calculus

Theatre

EE0100: Theater Arts I

Theater Arts I includes an overview of the structure of drama, the basic mechanics of acting, origins of storytelling, varieties of theatre, dramatic criticism, elements of play production and contemporary theatre awareness.

Credits	0.5
Prerequisites	None

EE0200: Theater Arts II

Theater Arts II includes a study of the history of theatre, the types and styles of theatre, dramatic criticism, stage and acting terms, intermediate acting techniques, play directing and technical and contemporary theatre awareness.

Credits	0.5
Prerequisites	Successful completion of Theater Arts I

EE0300: Theater Arts III

Theater Arts III includes instruction in advanced acting, dramatic criticism, stage and acting terms, types and styles of dramas, play writing, directing, technical theatre and contemporary performing arts.

Credits	0.5
Prerequisites	Successful completion of Theater Arts II

EE0400: Stagecraft I

Stagecraft I concentrates on the technical aspects of theatre and play production. The course content includes scenic design and set construction, lighting design and execution, costume and make-up design, properties and property design, special effects, sound techniques, stage terms, stage management, stage personnel duties, business management and types of stages.

Credits	0.5
Prerequisites	None

EE0450: Honors Stagecraft II

Stagecraft II continues to concentrate on the technical aspects of theatre and play production including set design, costuming, lighting design, and sound design. Students will explore how these skills are used artistically and will make connection to how they are connected to playwrighting and directing.

Credits	0.5
Prerequisites	Successful completion of Theater III and Stagecraft I

EE5450: Advanced Theater Arts IV

An intensive study of acting and theatre arts to challenge the advanced student. Students will increase acting skills through advanced exploration of modern acting theory. Will include preparation for college admission requirements and other professional opportunities including local and national theatre auditions. Students broaden their abilities in playwriting, directing, and stage management. Critical analysis skills will increase with viewing and participating in performances.

Credits	0.5
Prerequisites	Successful completion of Theater I-III

EE6009: Theater Arts Grade 6

Theater Arts Grade 6 is designed to provide students with an introduction to the study of theatre history, literature and production. This course prepares students for further theatrical study and nurtures an appreciation for the many forms of theatre.

Prerequisites	None

EE7009: Theater Arts Grade 7

Theater Arts Grade 7 is designed to provide students with an introduction to the study of theatre history, literature and production. Through research, planning, scripting, production, and performance experiences, students acquire skills in communicating ideas, critical thinking and collaborative problem solving.

Prerequisites	None

EE8009: Theater Arts Grade 8

Theater Arts Grade 8 is designed to provide students with an introduction to the study of theatre history, literature and production. Through research, planning, scripting, production, and performance experiences, students acquire skills in communicating ideas, critical thinking, and collaborative problem solving. This course prepares students for further theatrical study and nurtures an appreciation for the many forms of theatre.

Prerequisites	None

World Language

6th – RN6IWL, 7th – WL7409: Introduction to World Languages

This course will provide students with an introduction to French, German and Spanish languages and related cultures, and may be offered as a one quarter, one semester or full year course.

Prerequisites	None

IA – WL7010, IB – WL8020: Spanish IA & IB

Successful completion of both Spanish IA in 7th grade and Spanish IB in 8th grade is the equivalent of Spanish I taken as a one-year course in 8th grade or high school. A sequence of five years of Spanish courses is available. The emphasis in these courses is on the development of listening, speaking, reading and writing skills in the target language. Students also gain an understanding of various Spanish-speaking cultures.

Credits	0.5
Prerequisites	None

IA – WL7110, IB – WL8120: French IA & IB

Successful completion of both French IA in 7th grade and French IB in 8th grade is the equivalent of French I taken as a one-year course in 8th grade or high school. A sequence of five years of French courses is available. The emphasis in these courses is on the development of listening, speaking, reading and writing skills in the target language. The courses also offer students a better understanding of the French-speaking world.

Credits	0.5
Prerequisites	None

IA – WL7210, IB – WL8220: German IA & IB

Successful completion of both German IA in 7th grade and German IB in 8th grade is the equivalent of German I taken as a one-year course in 8th grade or high school. A sequence of five years of German courses is available. The emphasis in these courses is on the development of listening, speaking, reading and writing skills in the target language. The courses also provide students with an understanding of the cultures of German-speaking countries.

Credits	0.5
Prerequisites	None

I – WL0100, II – WL0200, III – WL0350, IV – WL0400, AP – WL0500: Spanish I, II, III, IV & AP

A sequence of five years of Spanish courses is available. The emphasis in these courses is on the development of listening, speaking, reading, and writing skills in the target language. Students also gain an understanding of various Spanish-speaking cultures. Separate sections of Spanish for native speakers may be available. AP Spanish students prepare for and take the College Board's Advanced Placement Test, and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Credits	**0.5**
Prerequisites	**Level I – none; Levels II-AP – Successful completion of previous levels or equivalent.**

I – WL0150, II – WL0250: Honors Native Spanish I & II

A sequence of two years of Spanish courses is available to native and heritage speakers of Spanish, leading to Advanced Placement Spanish in the third year. The emphasis in these courses is on refinement of the four skills of listening, speaking, reading, and writing, with a special emphasis on development of literacy skills. These courses also offer students a better understanding of the Latin American and Spanish culture. Spanish is used 100% of the time in class for instruction and interaction between students.

Credits	**0.5**
Prerequisites	**Level I –placement exam; Level II – Successful completion of previous level or equivalent**

WL0160: International Languages, Cultures & Relations

International Languages Culture and Relations is a yearlong course that will focus on an introduction to the languages and cultures of diverse countries worldwide. This course centers around the core principles of fostering awareness, deep understanding, and genuine acceptance of international languages and cultures, with a keen emphasis on their pivotal role in the realm of international relations. Throughout this course, students will embark on a comprehensive exploration, offering a fundamental introduction to the language of the country under study, covering not only linguistic aspects but also delving into facets such as culture, religion, values, government, art, literature, and entertainment.

Credits	**0.5**

WL0171/WL0172: Spanish in Action: Community Engagement

Spanish in Action: Community Engagement is designed as a capstone course for students who have participated in the Dual Language Immersion (DLI) program. The course provides students with meaningful opportunities to apply their bilingual skills in authentic contexts through service, mentorship, and community engagement.

This course bridges classroom learning with real-world application by connecting high school DLI students to local elementary DLI programs and community organizations that serve Spanish-speaking populations. Through these partnerships, students will use their language and cultural competence to support instruction, mentor younger learners, and contribute to community initiatives, deepening their understanding of the role bilingualism plays in civic engagement, leadership, and professional success.

Credits	**0.5**
Prerequisites	**DL Spanish IV, DL AP Spanish Language & Culture, DL International Languages Culture & Relations**

WL0510: AP Spanish Literature and Culture

The AP Spanish Literature and Culture course uses a thematic approach to introduce students to representative texts from Peninsular Spanish, Latin American, and United States Hispanic literature. Students continue to develop proficiencies across the full range of the modes of communication, sharpening their critical reading and analytical writing skills. Literature is examined within the context of its time and place, as students reflect on the many voices and cultures present in the required readings. The course also includes a strong focus on cultural connections and comparisons, including exploration of various media. Students prepare for and take the College Board's Advanced Placement Test, and those who receive an acceptable score on the test may receive college credit/or advanced standing in college.

Credits	**0.5**
Prerequisites	**Successful completion of AP Spanish Language & Culture course.**

WL0720: Spanish Literature and Film

Spanish Literature and Film is a course designed to compare, contrast and, analyze contemporary literature and cinema. In this course, students will see how literature and cinema reflect the practices and perspectives of the diverse Latin American countries and Spain. The activities in the course are designed to refine oral communication skills, increase global awareness, and promote critical thinking. This course is entirely taught in Spanish.

Credits	**0.5**
Prerequisites	**Native Spanish I or II**

WL1100, WL1200, WL1350, WL1400, WL1500: French I, II, III, IV & AP

A sequence of five years of French courses is available. The emphasis in these courses is on the development of listening, speaking, reading, and writing skills in the target language. The courses also offer students a better understanding of the French-Speaking world. AP French students prepare for and take the College Board's Advanced Placement Test, and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Credits	**0.5**
Prerequisites	**Level I – none; Levels II-AP – Successful completion of previous levels or equivalent.**

WL2100, WL2200, WL2350, WL2400, WL2500: German I, II, III, IV & AP

A sequence of five years of German courses is available. The emphasis in these courses is on the development of listening, speaking, reading, and writing skills in the target language. The courses also provide students with an understanding of the cultures of German-speaking countries. AP German students prepare for and take the College Board's Advanced Placement Test, and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Credits	**0.5**
Prerequisites	**Level I – none; Levels II-AP – Successful completion of previous levels or equivalent.**

WL3100, WL3200, WL3350, WL3500: Latin I, II, III & AP

A sequence of four years of Latin courses is available. The beginning courses emphasize the fundamental principles of the language. Students are provided a working knowledge of the facts and terminology of both English and Latin. Students develop the ability to read and comprehend Latin. The works of Latin authors are read and, in the fourth year, students are introduced to the poetry and prose of Virgil and Cicero. AP Latin students prepare for and take the College Board's Advanced Placement Test, and those who receive an acceptable score on the test may receive college credit and/or advanced standing in

Credits	**0.5**
Prerequisites	**Level I – none; Levels II-AP – Successful completion of previous levels or equivalent.**

WL6009, WL7040, WL8040: Spanish Language Arts for Dual Language Immersion

Students taking Spanish Language Arts for Dual Languages will take a sequence of three courses available in each middle school grade level, leading to Advanced Placement Spanish in high school. The emphasis in these courses is on refinement of the four skills of listening, speaking, reading, and writing, with a special focus on development of literacy skills. Spanish is used 100% of the class time for instruction and interaction between students. Using a literature-based approach, the goals of the courses are to develop all four language skills as well as expand students' study skills in the areas of critical thinking, summarizing, making inferences, analyzing, and collaboration.

Credits	**0.5**
Prerequisites	**Previous participation in Elementary Dual Language Immersion Program**

WL8000: Spanish I

Spanish I in the 8th grade is equivalent to Spanish I at the high school. A sequence of five years of Spanish courses is available. The emphasis in these courses is on the development of listening, speaking, reading and writing skills in the target language. Students also gain an understanding of various Spanish-speaking cultures.

Credits	**0.5**
Prerequisites	**None**

WL8100: French I

French I in the 8th grade is equivalent to French I at the high school. A sequence of five years of French courses is available. The emphasis in these courses is on the development of listening, speaking, reading and writing skills in the target language. The courses also offer students a better understanding of the French-speaking world.

Credits	0.5
Prerequisites	None

WL8200: German I

German I in the 8th grade is equivalent to German I at the high school. A sequence of five years of German courses is available. The emphasis in these courses is on the development of listening, speaking, reading and writing skills in the target language. The courses also provide students with an understanding of the cultures of German-speaking countries.

Credits	0.5
Prerequisites	None

WL9101/WL9102, WL9201/WL9202, WL9301/WL9302, WL9401/WL9402: American Sign Language I, II, III, IV

American Sign Language (ASL) I–IV provides students with a progressive and immersive study of ASL as a distinct language and culture. Rooted in the Virginia World Language Standards and ACTFL's World-Readiness Standards for Learning Languages, these courses develop communicative competence through receptive and expressive skills, linguistic accuracy, and cultural understanding of the Deaf community.

Students will learn to engage in real-world conversations, interpret authentic ASL content, and present information on familiar and academic topics using appropriate linguistic structures and non-manual signals. As students advance through the sequence, they will explore more complex grammatical structures, expand vocabulary, and deepen their understanding of Deaf history, culture, and contemporary issues.

(+.5 weighted credit for ASL III & IV)

Credits	0.5
Prerequisites	None

Appendix

Appendix A - SOL Substitute Tests for Verified Credit

Students who take substitute tests for verified credit should not be required to also take the corresponding Standards of Learning (SOL) test.

English Substitute Tests

SOL Test	Substitute Test	Proficient	Advanced
End-of-Course (EOC) Writing	AP English Language and Composition+	2	3
	International Baccalaureate® (IB) English Language A: Literature and Language (Standard Level)+	2	3
	IB English Language A: Literature and Language (Higher Level)	2	3
	IB English Language A: Literature (Standard Level)+	2	3
	IB English Language A: Literature (Higher Level)+	2	3
	Test of English as a Foreign Language (TOEFL) International Test (iBT) Writing Subscore+	17	24
	Cambridge International Examinations: Cambridge International General Certificate of Secondary Education (IGCSE) First Language English	D	C
	Cambridge International Examinations: English Language General Certificate of Education (GCE) Advanced Subsidiary (AS Level)	E	D
	ACT: English/Writing Combined Score	16	22
	ACT: WordKeys: *Writing* ++	3	4
	ACT: WorkKeys: *Business Writing* (ACT will discontinue this test on June 1, 2018. See Superintendent's Memo No. 280-16, dated November 11, 2016 for details.)	3	4
	AP English Literature and Composition+	2	3
	SAT I Writing (Must have been administered prior to March 2016.)	400	500
	SAT Writing and Literacy Test AND Essay Writing Test (administered beginning March 2016)	Writing and Literacy: 21 AND Essay Writing: 4	Writing and Literacy: 31 AND Essay Writing: 6
EOC Reading	AP English Literature and Composition+	2	3
	IB English Language A: Literature and Language (Standard Level)+	2	3
	IB English Language A: Literature and Language (Higher Level)+	2	3
	IB English Language A: Literature (Standard Level)+	2	3
	IB English Language A: Literature (Higher Level)+	2	3
	Test of English as Foreign Language (TOEFL) International Test (i BT) Reading Subset+	16	21
	Cambridge International Examinations: Literature in English (IGCSE)	E	C
	Cambridge International Examinations: English Language GCE-Advanced Subsidiary (AS Level)	E	D
	Cambridge International Examinations: Literature in English GCE Advanced (A Level)	E	D
	ACT: Reading Subset	17	22

SOL Test	Substitute Test	Proficient	Advanced
	AP English Language and Composition+	2	3
	ACT: WorkKeys *Reading for Information* +++	4	6
	PSAT/NMSQT/PSAT10 Reading Test (administered beginning March 2016)	21	31
	SAT Reading Test (administered beginning March 2016)	21	30

+Students may use this test to earn two verified credits in English. ++ Available as a substitute test for the EOC Writing test based on the 2002 SOL only.

Mathematics Substitute Tests

SOL Test	Substitute Test	Proficient	Advanced
Algebra I	CLEP College Algebra	30	40
	IB Math Studies (Standard Level)++++	3	4
	IB Mathematics (Standard Level)++++	3	4
	IB Mathematics (Higher Level)++++	3	4
	SAT I Mathematics Subtest (must have been administered prior to March 2016)	440	520
	SAT II Math IC or SAT Subject Test in Mathematics Level 1	500	570
	SAT II Math IIC or SAT Subject Test in Mathematics Level 2	590	660
	PSAT/NMSQT/PSAT10 Math Test (administered beginning March 2016)	460	550
	SAT Math Test (administered beginning March 2016)	440	520
	AP Calculus++++	2	3
	Cambridge International Examinations: IGCSE Mathematics	E	D
	Cambridge International Examinations: IGCSE Additional Mathematics	E	D
	Cambridge International Examinations: IGCSE Extended Mathematics	D	C
	Cambridge International Examinations: Mathematics (A Level)	E	D
	Cambridge International Examinations: Further Mathematics (A Level)	E	D
	ACT: Mathematics Subtest	18	26
Algebra II	IB Math Studies (Standard Level)++++	3	4
	IB Mathematics (Standard Level)++++	3	4
	IB Mathematics (Higher Level)++++	3	4
	SAT II Math IC or SAT Subject Test in Mathematics Level 1	500	570
	SAT II Math IIC or SAT Subject Test in Mathematics Level 2	590	660
	AP Calculus++++	2	3
	Cambridge International Examinations: IGCSE Additional Mathematics	E	D
	Cambridge International Examinations: Mathematics (A Level)	E	D
	Cambridge International Examinations: Further Mathematics (A Level)	E	D
	CLEP College Algebra	50	63
Geometry	Cambridge International Examinations: IGSCE Mathematics	E	C
	Cambridge International Examinations: IGSCE Extended Mathematics	D	C
	ACT: Mathematics Subtest	20	27
	IB Math Studies (Standard Level)++++	3	4
	IB Mathematics (Standard Level)++++	3	4
	IB Mathematics (Higher Level)++++	3	4
	SAT II Math IC or SAT Subject Test in Mathematics Level 1	500	570

SOL Test	Substitute Test	Proficient	Advanced
	SAT II Math IIC or SAT Subject Test in Mathematics Level 2	590	660
	AP Calculus++++	2	3

+++Effective beginning with the 2015-2016 school year. ++++Students may use this test to earn two verified credits in Mathematics.

Science Substitute Tests

SOL Test	Substitute Test	Proficient	Advanced
Earth Science	Cambridge International Examinations: Environmental Science, GCE-AS Level	E	D
	IB Environmental Systems and Society (Standard Level)	2	3
	AP Environmental Science	2	3
Biology	AP Biology	2	3
	SAT II Biology Ecological OR Molecular	350	450
	CLEP General Biology	30	40
	IB Biology (Standard Level)	2	3
	IB Biology (Higher Level)	2	3
	Cambridge International Examinations: Biology, GCE (A Level)	E	D
	Cambridge International Examinations: Biology, GCE (AS Level)	E	D
Chemistry	AP Chemistry	2	3
	SAT II Chemistry	400	500
	CLEP General Chemistry	33	43
	B Chemistry (Standard Level)	2	3
	IB Chemistry (Higher Level)	2	3
	Cambridge International Examinations: Chemistry, GCE (A Level)	E	D
	Cambridge International Examinations: Chemistry, GCE (AS Level)	E	D

++++ *Students may use this test to earn two verified credits in Mathematics.*

History and Social Science Substitute Tests

SOL Test	Substitute Test	Proficient	Advanced
VA & US History	AP US History	2	3
	CLEP History of US I and II (total score for both tests)	60	80
	SAT II American History	400	500
	IB US History (Higher Level)	2	3
World History and Geography to 1500	SAT II World History	450	530
	AP World History	2	3
World History and Geography from 1500-Present	SAT II World History	450	530
	AP World History	2	3
	AP European History	2	3
World Geography	IB History of Europe	2	3
	AP Human Geography	2	3
	Cambridge International Examinations: IGCSE Geography	F	D
	Cambridge International Examinations: GCE (A Level)	E	D
	Cambridge International Examinations: GCE (AS Level)	E	C

SOL Test	Substitute Test	Proficient	Advanced
	IB Geography Test	2	3

Appendix B - Virginia Board of Education Approved Industry Certifications, Occupational Competency Assessments and Licensures

Name of Credential	Issuing Organization	Meets Board of Education Criteria		
		Student-Selected Verified Credit	Career & Technical Education Seal	Advanced Mathematics & Technology Seal
AGRICULTURAL EDUCATION				
Commercial Pesticide Applicator Certification	Virginia Department of Agriculture and Consumer Services	X	X	X
Horticulture Landscaping Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
BUSINESS AND INFORMATION TECHNOLOGY				
Accounting	National Occupational Competency Testing Institute (NOCTI)	X	X	
Advanced Accounting	National Occupational Competency Testing Institute (NOCTI)	X	X	
Brainbench Software Development Certifications	Brainbench	X	X	X
Certified Internet Webmaster Professional (CIW) Program (Pass any one exam in this program)	ProsoftTraining	X	X	X
Internet Core Computing Concepts (IC3) (Must pass all three parts)	Certiport	X	X	X
Microsoft Certified Professional (Pass any one Microsoft Professional exam)	Microsoft	X	X	X
Microsoft Office Specialist (MOS) (Pass any one MOS exam}	Microsoft	X	X	
Network+ Certification	CompTIA	X	X	X
Oracle Certified Professional (Pass any one Oracle Professional Certification Exam)	Oracle Corporation	X	X	X
W!SE Financial Literacy Certification	Working in support of Education		X	
Microsoft Technology Associate (MTA) (Pass any one exam)	Microsoft	X	X	
Adobe Certified Associate (Pass any one exam)	Adobe Systems, Inc.	X	X	
College and Work Readiness Assessment (CWRA+)	Council for Aid to Education	X	X	
Workplace Readiness Skills for Commonwealth Examination	Career and Technical Education Consortium of States (CTECS)	X	X	
FAMILY AND CONSUMER SCIENCES				
ServSafe Food Protection Manager Certification	National Restaurant Association	X	X	
Early Childhood Care and Education Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
Retail Commercial Baking Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
Broad Field Family & Consumer Sciences Examination	American Association of Family & Consumer Sciences	X	X	
Workplace Readiness Skills for Commmonwealth Examination	Career and Technical Education Consortium of States (CTECS)	X	X	

Name of Credential	Issuing Organization	Meets Board of Education Criteria		
		Student-Selected Verified Credit	Career & Technical Education Seal	Advanced Mathematics & Technology Seal
HEALTH AND MEDICAL SCIENCES				
Certified Dental Assistant: Radiation Health and Safety Examination (RHS)	Dental Assisting National Board	X	X	
Dental Assisting Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
Nurse Aide	Virginia Board of Nursing	X	X	
MARKETING EDUCATION				
Lodging Management Program Certification (Levels 1 and/or 2)	American Hotel and Lodging Association (AH&LA)	X	X	
National Professional Certification in Customer Service and Sales	National Retail Federation Foundation	X	X	
Advanced Customer Service and Sales	National Retail Federation Foundation	X	X	
College and Work Readiness Assessment (CWRA+)	Council for Aid to Education	X	X	
Workplace Readiness Skills for Commonwealth Examination	Career and Technical Education Consortium of States (CTECS)	X	X	
TECHNOLOGY EDUCATION				
AutoCAD Certification (Pass any one exam)	Brainbench	X	X	
Autodesk Application Certification Program (Pass any one exam)	Autodesk	X	X	
Electronic Technology Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
Manufacturing Technology Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
Advertising and Design Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
College and Work Readiness Assessent (CWRA+)	Council for Aid to Education	X	X	
Workplace Readiness Skills for Commonwealth Examination	Career and Technical Education Consortium of States (CTECS)	X	X	
TRADE AND INDUSTRIAL EDUCATION				
A+ Certification (Pass any one exam from 2006 certification program)	CompTIA	X	X	
Advertising and Design Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
Automotive Technician, ASE-(Pass any exam from Automobile Technician Test Series)	National Institute for Automotive Service Excellence	X	X	X
Automotive Technician Core	National Occupational Competency Institute	X	X	X
Carpentry Assessment	Home Builders Institute: Carpentry	X	X	
Certified Electronics Technician Associate (CET)	Electronics Technicians Association, International (ETA)	X	X	
Cisco CCNA Academy End-of-Course Certificate (Pass any two end-of-course exams, Levels 1-4)	Cisco Systems	X	X	X
Cisco Certified Networking Associate (CCNA)	Cisco Systems	X	X	X
Collision Repair/Refinishing Technology	National Occupational Competency Testing Institute (NOCTI)	X	X	

Name of Credential	Issuing Organization	Meets Board of Education Criteria		
		Student-Selected Verified Credit	Career & Technical Education Seal	Advanced Mathematics & Technology Seal
Construction Masonry-Bricklaying Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
Criminal Justice Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
Data Cabling Installer Certification (DCIC)	Electronics Technicians Association, International (ETA)	X	X	
Electrical Assessment	Home Builders Institute: House Wiring	X	X	
EPA Technician Certification (Levels I, II, or III)	Environmental Protection Agency (Authorized Entity)	X	X	
Emergency Medical Technician	Department of Health, Office of Emergency Medical Services	X	X	
Fiber Optics Installer Certification	Electronics Technicians Association, International (ETA)	X	X	
Heating, Electrical, Air Conditioning Technology	HVAC Excellence	X	X	
Heating, Ventilation, Air Conditioning (HVAC) Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
Heating, Ventilation, Air Conditioning and Refrigeration Assessment	Home Builders Institute: HVAC	X	X	
National Automotive Technicians Education Foundation (NATEF) End-of-Program Test Series Examinations (Pass any two NATEF, end-of-program test series)	National Automotive Technicians Education Foundation	X	X	
Outdoor Power Equipment Certifications (Pass any one Outdoor Power Equipment exam)	Equipment and Engine Training Council	X	X	
Plumbing Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
Small Engine Technology Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
Student Electronics Technician Certification (SET)	Electronics Technicians Association, International (ETA)	X	X	
Television Broadcasting Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
Welding Assessment	National Occupational Competency Testing Institute (NOCTI)	X	X	
College and Work Readiness Assessment (CWRA+)	Council for Aid to Education	X	X	
Workplace Readiness Skills for Commonwealth Examination	Career and Technical Education Consortium of States (CTECS)	X	X	
LICENSE				
Cosmetology	Board of Barbers and Cosmetology (Virginia Department of Professional and Occupational Regulations)	X	X	

The following matrix identifies sequential electives in each discipline of the regular instructional program that can be used to satisfy the graduation requirement of a two (2) year sequence of focused sequential electives.

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