HAMPTON CITY SCHOOLS

High School

Course Offerings Guide

2017-2018
Welcome to school year 2017-18! High school is an exciting time for students and families, as the final phase of the student’s educational experience becomes reality.

The staff and administration of Hampton City Schools look forward to sharing this marvelous journey with you. Our goal is the high school experience will build on a foundation of previous preparation and culminate with a readiness for any post-secondary education or career you desire.

This booklet provides vital information about courses that are required for graduation, as well as, providing opportunities to explore a variety of career options. School counselors use Naviance as a web-based tool to monitor their students’ progress and to advise appropriately to ensure career and college readiness. We encourage parents and students to use Family Connection, the family component, to self-monitor academic progress, keep up to date on graduation status, and to search colleges and careers to set goals for life after high school.

Annually your school counselor will meet with each student to develop an Academic & Career Plan (ACP). We encourage this to be a family activity as we all share the common goal of a successful high school experience leading to an even more successful future!

Hampton City Schools School Counseling Program
A well-organized and administered School Counseling program in each secondary school supports the instructional program and provides opportunities for meeting students’ needs through: academic and educational planning; personal and social development; and career development and planning. For more information, please contact the Division Director of Student Development and Counseling at 727-2760.

Hampton City School’s Office of Student Development and Counseling
1 Franklin Street
Hampton, Virginia 23669
Carla L. Mahn, Director

High School Counseling Coordinators

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Patrice Williams, Coordinator

Kecoughtan High School
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Stacie Tyson, Coordinator

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Kim Johnson, Counselor

Hampton High School
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George Cunningham, Coordinator

Phoebus High School
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Section I: General Information

The information in this guide is designed to help students and parents with the selection of courses for grade 9 through grade 12. Students should read this information and consult with their parents, teachers and school counselors in developing their personalized Academic & Career Plan.

Section II provides a more detailed description of courses taught in our high schools. Offerings may vary by school. Your school counselor will have information as it pertains to your school.

Section III provides a more detailed description of special programs. This section also has appendices that serve as tools for making decisions that will ensure students maximize their high school experience and are prepared for life after high school.

The High School Experience:

- Grades 9-12 offer a comprehensive program featuring offerings of core subjects, career & technical education, and fine arts courses
- Comprised of 36 weeks divided into four 9-week marking periods
- The year consists of 2 semesters; one-half standard credit is awarded for each course successfully completed each semester; some CTE courses may grant credit by the year rather than by the semester
- Block schedule: each day is divided into 4 equal blocks
- Total of 8 classes may be taken in 1 school year
- In order to graduate students must earn a specified number of standard and verified credits.
- A “standard credit” is awarded for each course with a grade of A, A-, B+, B, B-, C+, C, C- and D.
- A “verified credit” is earned by passing the End-of-Course SOL test and the course associated with the SOL test
- Promotion from one grade level is based on the standard and verified credits earned (refer to Section III, Resources)
- “Levels” of rigor are associated with courses. These levels are average (2), honors (3-H), Advanced Placement (AP) and International Baccalaureate (IB). All college bound students are highly encouraged to take higher-level courses in order to be best prepared for a successful college experience

Graduation Requirements and Diploma Options:
The Virginia Board of Education approves graduation requirements and diploma options based on the year a student first enters the ninth grade. It is imperative that students and parents work closely with the school counselor to ensure students are following the correct track. Section III, Resources provides requirements for each diploma option.

Class Rank:
Rank in class will be based on a 4.0 grade point average (GPA) scale. Honors courses will receive a GPA added value of .5. Advanced Placement classes, IB classes and approved college level courses will receive a GPA added value of 1.0 weight. When a course is repeated, the highest grade earned will be calculated into the cumulative grade point average. Class rank for graduation purposes is calculated after the first semester of the senior year {refer to School Board Policy IKC}

Honor Graduate Designations:
For graduation purposes GPAs are calculated after the first semester of the senior year.

- **Valedictorian** - The student with the highest class rank at the end of the first semester of twelfth grade will be the Valedictorian of the graduating class. When more than one student holds the numerical rank of one, all students holding the rank will be declared Co-Valedictorians.
- **Salutatorian** - The student with the second highest rank at the end of the first semester of the twelfth grade will be the Salutatorian of the graduating class. When more than one student holds the second highest rank, all students holding that rank will be declared Co-Salutatorians.
- **Honors** - grade point average between 3.0 - 3.49
- **Highest Honors** - grade point average of 3.5 and above.
Grading Scale: {refer to HCS School Board Policy IKC}

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Course Selections & Student Schedules
School counselors meet individually with students each spring to review academic progress toward on-time graduation status and to select courses for the following school year. In order to build a master schedule that best meets the needs of all students, the quantity and scheduling of specific courses must be based on student course requests. Class offerings are contingent upon a minimum enrollment number. Changes to student schedules following the completion of the master schedule can negatively impact class size. Students should **choose courses carefully** during the course selection conference. Parents are invited and encouraged to attend these conferences. Prior to the beginning of the new school year students will receive a copy of their Student Requests. It is imperative these requests be reviewed by student and parent before the beginning of the school year. If a revision is desired please contact the School Counseling Department of your school to make an appointment. Revisions will be made based on class availability and the impact to graduation status.

College & Career Readiness: In addition to a diploma, it is the goal of Hampton City Schools to prepare our students to graduate prepared for a successful future.

**For best college preparation students will:**
- Take math and science each year in high school. Most colleges require Algebra II as a minimum for entrance.
- Take at least 3 years of foreign language.
- Take the most rigorous courses available. HCS offers courses at the honors level in addition to AP, IB and Dual Enrollment (DE). Course selections should follow a pathway to your career goals.
- Demonstrate community service and volunteerism throughout your high school experience.
- Take the PSAT in the 10th & 11th grade.
- Take the SAT and/or ACT in 11th grade and again in 12th grade if a higher score is desired.
- Discuss your plans with your school counselor, parents and teachers.
- Refer to Section III, Resources for “What Do I Need to Get Into a Four Year College”

**For best employment opportunities students will:**
- Take math each year in high school.
- Take elective courses that explore a variety of careers.
- Choose a CTE (Career & Technical Education) pathway that interests you.
- Explore opportunities for job shadowing, internships and mentorships to give you a deeper insight to a career.
- Plan your course of study to give you the broadest range of experiences.
Early College Opportunities: HCS offers a variety of options for students to earn college credits while still in high school. While not all careers require a college degree we want our students to feel prepared for college so they have that option upon graduation.

- **Early College Scholars Program**: The ECS 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 high school experience 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. Participating students sign an Early College Scholars Agreement, which is also signed by the parent/guardian, principal and school counselor. Students who meet the terms of the agreement upon graduation receive a certificate from the Governor. ECS students may take courses through Virtual Virginia free of charge. To qualify students must:
  - Have a “B” average;
  - Be pursuing an Advanced Studies; and
  - Take and complete college-level course work (AP, IB or DE) that could earn them at least 15 transferable college credits.

- **Dual Enrollment**: A statewide framework exists for dual enrollment arrangements between Virginia public schools and community colleges. These arrangements may be made between the representatives of local boards of education and the participating community colleges authorized to contract such agreements. These may be formed in a variety of ways.
  - First, high school students may be enrolled in the regularly scheduled college credit courses with the other students taught at the community college.
  - Second, high school students may be enrolled in specially scheduled college credit courses conducted exclusively for high school students taught at the high school.
  - Third, high school students may be enrolled in specially scheduled college credit courses conducted exclusively for high school students taught at the community college.
  - HCS & TNCC shall provide a pathway for participating students to complete an associate’s degree or one-year Uniform Certificate of General Studies (General Education Certificate) concurrent with their high school diploma. Credit awarded for applicable dual enrollment courses and Advanced Placement courses with qualifying exam scores of three or higher may be applied toward attainment of the aforementioned credentials (Refer to Section III, Special Programs)
  - All dual enrollment courses may be counted toward the 15 college credits required for a student to become an Early College Scholar.

- **Advanced Placement and International Baccalaureate**: Advanced Placement (AP) allows high school students the opportunity to enroll in courses that follow established College Board course curricula. Students receive high school credit for AP courses and may earn college credit with a qualifying score on the AP exam as determined by the college or university. Arrangements for all credit earning programs must be made through the counseling department of each HCS high school. (Refer to Section III, Special Programs)

- **The International Baccalaureate (IB Program)**: The IB Program is a rigorous program highly regarded by colleges and universities around the world as superior preparation for the academic challenges of postsecondary education. The IB Diploma is a comprehensive two-year curriculum that allows its graduates to fulfill the requirement of various national education systems. The IB Program:
  - has examinations on six core subjects: arts & electives, math, experimental sciences, individuals & societies, languages, and a second language;
  - is designed to meet the needs of highly motivated secondary students between 16 and 19 years of age;

The HCS IB program is currently offered through Hampton High School. Students who desire to enroll in IB, but are not zoned to attend Hampton High must apply for an out-of-zone waiver. Please consult your school counselor for more information.
Section I: Student Support Services

Alternative Education: Alternative programs provide an opportunity to a particular student not experiencing success in a typical classroom structure. For more information, please contact the Director of Alternative Learning Myra A. Chambers at 727-1327.

Academic Advancement & Enrichment (Gifted Education): The Department of Academic Advancement and Enrichment coordinates services that meet the needs of gifted and high ability students in Hampton City Schools. Included in these services are Gifted Education Services, and the International Baccalaureate program. Each high school offers honors and Advanced Placement courses to meet these needs. For more information, contact the Director Ruth Grillo at 727-2160.

Family Connection: This comprehensive website allows the student and parent to get involved in the planning and advising process, research colleges careers, as well as, creating plans for the future. All middle and high schools students have an individual account and parents can create one as well. Please contact your school counselor for more details.

Fee Waivers: Students who qualify for free/reduced lunch also qualify for a variety of fee waivers. Fee waivers may be used to supplement the cost of AP/IB exams, college admission tests such as the SAT and ACT, as well as college application fees. For more information, contact your school counselor.

Homebound Instruction Extended Services: Homebound Instruction is a program for students who are ill and expected to be out of school for more than 10 days, for special education students who need a more restrictive environment, or for students on long-term suspension for whom another placement is unavailable. Applications for extended services are available in the home school or at the Adult Education Office. Requests for homebound instruction for medical reasons must be made in conjunction with a physician or clinical psychologist and based on a documented medical or psychological condition. For more information, please contact the program Coordinator Karen Williams at 727-2152.

Special Education Programs and Related Services: Hampton City Schools is committed to serving all identified youth with disabilities, ages 2-21, inclusive. All students are provided with free appropriate public education in the least restrictive environment. For more information, please contact the Division Director of Special Education Services Margaret Mathews at 727-2400.

Summer School: The traditional summer program is a tuition-based program that allows students to complete one semester of study and earn 0.5 standard credits toward graduation. Complete details are provided in a separate brochure in the spring of each school year. The virtual summer program is a tuition-based program that allows students to take courses online. These courses may be taken in addition to those in the traditional program offerings. For more information, please contact your school counselor.

Virtual (on-line) Options: In an effort to offer a variety of educational opportunities and experiences to our students, Hampton City Schools participates in a variety of virtual (on-line) coursework offerings. These offerings are available to students for courses that we do not currently offer in our traditional building and/or to accommodate a scheduling conflict. While we encourage students to take advantage of these offerings we want to ensure a clear understanding for both parent/guardian and the student of this undertaking. We will provide support to each student in order to maximize his or her success. For more information, please contact your school counselor or visit the VA Department of Education at www.virtualvirginia.org
ENGLISH CORE CLASSES
Required to Graduate:
4 standard credits and 2 verified credits
SOL’s; End-of-Course test: English 10: Writing (1 verified credit) & English 11: Reading (1 verified credit)

Level 2 = Average, .0 wt
Level 3 = Honors, .5 wt
Level 4 and AP (Advanced Placement), 1.0 wt

ENGLISH 9 (1130)
Levels: 2, 3-Honors
• Investigate themes in art, music, and literature
• Read selections that vary in time, place, and theme
• Study major writers, artist, and musicians
• Critique dramatic reading and make planned oral presentations
• Read and analyze a variety of literature and nonfiction
• Develop narrative, expository, and persuasive writings for a variety of purposes and audiences
• Apply grammar and usage rules
• Apply the writing process to refine narrative, literary, expository, and informational writing
• Study the fundamentals of research
• Apply learning tools (work processing, note taking, paraphrasing, summarizing, problem-solving, etc.)
• Increase vocabulary and improve spelling
• Incorporate technology
• Explore the impact of media

ENGLISH 10 (1140)
Levels: 2, 3-Honors
• Communicate in group activities
• Analyze literary works from a variety of cultures and eras
• Refine writing skills
• Analyze printed consumer information
• Prepare a research product
• Apply grammar and usage rules
• Increase vocabulary and improve spelling
• Incorporate technology
• Examine, analyze & produce media message
• Develop a variety of writing with emphasis on persuasion

ENGLISH 11 (1150)
Levels: 2, 3-Honors
• Develop and deliver a persuasive oral presentation
• Analyze persuasive presentations
• Identify prevalent themes in American literature
• Assess the value of a variety of printed materials
• Recognize the contributions of other cultures to development of American Literature
• Demonstrate mastery of persuasive, literary, expository and informational writing
• Create a documented research product
• Apply grammar and usage rules
• Increase vocabulary and improve spelling
• Incorporate technology

ENGLISH 12 (1160)
Levels: 2, 3-Honors
• Plan and deliver an effective formal oral presentation
• Analyze British literature as well as literature from other cultures
• Assess the value of printed and electronic resources
• Produce a well-documented research product
• Apply grammar and usage skills
• Increase vocabulary and improve spelling
• Incorporate technology
ENGLISH ELECTIVES
Elective courses vary by school. Check with your School Counseling Department for availability

JOURNALISM & YEARBOOK I, II, III, IV (1200, 1210, 1211, 1212)
Level 2
• Focus on writing skills and print media in the 20th century
• Write news stories, features, sport stories, and editorials for publication of the school newspaper
• Develop skills in newspaper style, news, features, sports, editorials, captions, and editing/proof symbols
• Develop production/graphics skills in design, paste-up, advertising, circulation photo cropping and sizing, and design elements
• Explore legal restraints on free speech that affects high school publications as well as metropolitan dailies
• Develop a newspaper vocabulary

CREATIVE WRITING (1171)
Level 2
• Write various kinds of poetry and prose
• Develop expression of feelings and ideas
• Apply compositions skills

ADVANCED CREATIVE WRITING (1171)
Level 2
Prerequisite: Creative Writing or Teacher Recommendation
• Build on skills students have learned in Creative Writing
• Produce school literary magazine
CREATIVE WRITING III (1171)
Level 2
Prerequisite: Advanced Creative Writing
- Write various types of poetry and prose
- Work on creating longer pieces of literature
- Help write and edit the literary magazine
- Apply good composition skills and be willing to write

ACTING (1410)
Level 2
- One semester class (1/2 credit)
- Performance class
- The use of voice and body in stage projection

TECHNICAL DRAMA (1435)
Level 2
- One semester class (1/2 credit)
- Non performance class
- Gain an introduction to basics of set construction and design, lighting and costume makeup
- Apply practical experience to supplement classroom theory

ACTING II/DIRECTING (1440)
Prerequisite: Acting I and Technical Drama
Level 2
- Act in and direct several one-act plays

ACTING III/DRAMATIC LITERATURE & HISTORY (1430)
Level 2
Prerequisites: Acting II/Directing
- Expand knowledge of Theater Arts through expression and performance
- Investigate dramatic literature, theatrical styles, and historical periods
- Study and respond to a variety of theatre experiences that will refine their communicative, collaborative, analytical, interpretive, and problem-solving skills
- Refine teamwork and leadership skills through production performances

ACT/SAT CRITICAL READING PREP (1515)
(½ credit, one semester)
Level 2
Prerequisites: Algebra I, Geometry, and a college-bound course of study
- One semester course: half math/half verbal & writing
- Use ACT/SAT Software & ACT/SAT Practice Tests
- Option to take course as PASS/FAIL or letter grade

READING IMPROVEMENT (1515, 1516, 1517, 1518)
Level 2
- Reading intervention (READ 180 and Voyager)
- Focuses on vocabulary and reading comprehension strategies
- Includes whole and small group instruction, computer-based practice and independent reading

* FYI: Required summer reading for grades 9-12 will be available on the HCS website under Language Arts Department
MATHEMATICS CORE COURSES

Minimum Required to Graduate: 3 standard credits and 1 verified credit;
SOL’s: Algebra I, Geometry, and Algebra II

Level 2 = Average, .0 wt
Level 3 = Honors, .5 wt
AP (Advanced Placement), 1.0 wt

The secondary mathematics program provides a sequence of courses designed to meet the individual ability, interests, needs, and career plans of each student. Important components of each mathematics course include the use of problem solving, communication, and higher order thinking skills throughout the delivery of instruction. Consequently, students should learn to apply mathematics in one context to other aspects of their lives, thus view and appreciate mathematics as important. Essential knowledge and skills are introduced in an organized and logical order and build on previously learned concepts.

Mathematics is a powerful universal language that requires skills in communication mathematical ideas and its interdependence and connections to other disciplines. Since technology is a tool used to represent mathematical ideas, students are encouraged to purchase an approved TI-84 graphing calculator for classroom and home use. All math high school courses require use of a graphing calculator. Hampton City Schools provides calculators for students to use in the classroom.

It is the expectation of HCS that all students will take 4 years of math in high school:

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ALGEBRA I (3130)
Prerequisite: Pre-Algebra, Course II
Honors or Course 3
Level 3
• Reporting Categories:
  Expressions/Operations;
  Equations/Inequalities; Functions; and
  Statistics

ALG I DOUBLE BLOCK (3131/3132)
Prerequisite: Course 3
Level 3 math credit, Level 2 elective credit
• Reporting Categories:
  Expressions/Operations;
  Equations/Inequalities; Functions; and
  Statistics
• Meets credit accommodation eligibility for students with IEP/504 (two math credits)

GEOMETRY (3143)
Level 3
Prerequisite: Algebra I or Algebra I Double Block
• Reporting Categories: Reasoning/Lines/Transformations; Triangles; Polygons/Circles; and Three-Dimensional Figures

GEOMETRY DOUBLE BLOCK (3144, 3145)
Level 3 math credit, Level 2 elective credit
Prerequisite: Algebra I or Algebra I Double Block
• Student’s entering the 9th grade in 2010 and beyond, earn one math and one elective
• Meets credit accommodation eligibility for students with IEP/504 (two credits)

ALGEBRA II (3135)
Level 3
Prerequisites: Algebra I & Geometry
• Reporting Categories: Expressions/Operations; Equations/Inequalities; Functions; and Statistic
• Minimum math required for Governor’s School Program

ALG II/TRIGONOMETRY (3137)
Level 3
Received A or B in Algebra I & Geometry
• Reporting Categories: Expressions/Operations; Equations/Inequalities; Statistics; and Trigonometry
• Recommended preparation for Governor’s School

MATHEMATICS ELECTIVES
Electives may meet graduation requirements when taken with core courses

ALGEBRA, FUNCTIONS & DATA ANALYSIS (3134)
Level 3
Prerequisite: Algebra I and Geometry
• May be used for a 3rd math credit for a standard diploma
• May be used for a 4th credit for an advanced diploma with successful completion of Algebra II
• No End-of-Course SOL Test
• Investigate and Analyze Functions
• Model, Interpret, and Analyze Data from Life Situations
• Infusion of Technology
• Collect and Generate Equations for Graphing

MATHEMATICS CAPSTONE COURSE (3136)
Level 3
Seniors only
Prerequisites: AFDA and/or Algebra II; at least two verified math credits
This course is designed for high school seniors who: have satisfactorily completed the required math courses based on the Standards of Learning including Algebra, Functions, and Data Analysis or Algebra II; have earned at least two verified credits in math; and are college intending but may not be fully college ready. The course may also support students who meet the same academic requirements but plan to enter the work force (prepared for further work force training) directly after graduation from high school
• May be used for a fourth credit for an advanced diploma with successful completion of Algebra
COMPUTER MATH (3184)
Intro to Programming
Level 3
Prerequisite: Algebra I
• May be used as 3rd math credit for a Standard Diploma
• Teaches programming concepts by implementing the Teach Scheme! Project
• Analyze a problem statement
• Express its essence abstractly and with examples
• Formulate statements and comments using the Scheme language
• Evaluate and revise in light of checks and tests
• Pay attention to details

PRE-CALCULUS (3162)
Level 3
Received: Grade A or B in Algebra II/Trigonometry or Teacher recommendation
• May be used as 4th math credit for an Advanced Studies Diploma
• Preparation for AP Calculus AB or AP Calculus BC
• Polynomials, Logarithmic and Exponential Functions
• Trigonometric Functions and Analytic Geometry
• Graphing in Cartesian and Polar Systems
• Sequences, Series
• Parametric Equations, Conics, Limits
• Introduction to the Derivative
• Recommended preparation for Governor’s School

ELEMENTARY FUNCTIONS (3163)
Level 3
Prerequisite: Algebra II
• May be used as 4th math credit for Advanced Studies Diploma
• Preparation for AP Calculus AB or AP Statistics
• Polynomials, Logarithmic and Exponential Functions
• Graphing in Cartesian and Polar Systems
• Parametric Equations, Conics
• Sequence and Series
• Trigonometry

PROBABILITY AND STATISTICS (3190)
Level 3
Prerequisite: Algebra II
• May be used as 4th math credit for an Advanced Studies Diploma
• Develop statistical and probabilistic reasoning
• Use curve fitting to make predictions from data
• Apply Measures of Central Tendency, variability, and correlation
• Design a statistical experiment and use sampling techniques

PERSONAL LIVING & FINANCES (3120)
Level 2
• For students who have a disability and are unlikely to meet the requirements for a Standard Diploma
• Topics include: opening a bank account, balancing a check book, completing loan applications, personal insurance policies, simple contracts
• SOL end of course test is not required

ACT/SAT MATH PREP (1515)
Level 2 (1/2 credit, one semester)
Prerequisites: Algebra I, Geometry, and a college-bound course of study
• Semester Course: half math/half verbal & writing
• Algebra I, Geometry, and Algebra II Content
• Uses ACT/SAT Software & ACT/SAT Practice Tests
• Option to take course as PASS/FAIL or letter grade
MATHEMATICS
ADVANCED PLACEMENT
COURSES

AP COMPUTER SCIENCE  (3185)
Prerequisite:  Computer Math and/or teacher recommendation
• May be used as 4th math credit for an Advanced Studies Diploma
• Programming Methodology with concentration on problem solving and algorithm development
• Equivalent to a semester college course in Computer Science
• Study data structures and abstractions
• Design and implement computer-based solutions to application problems
• Use well known algorithms and data structures
• Code fluently using Java in a well-structured fashion
• Read and understand large programs
• Identify major hardware and software components of a computer system
• Recognize ethical and social implications of computer use
• Students have the option to take the AP exam

AP CALCULUS AB  (3177)
Prerequisite:  Pre-Calculus or Elementary Functions
• May be used as 4th math credit for an Advanced Studies Diploma
• Follows the College Entrance Examination Board Syllabus
• College level course that requires fluency in algebraic and transcendental functions
• High concentration on limits, continuity, differentiation, integration, and applications
• Includes sequences, series, intervals of convergence, first order differential equations
• Designed for students planning a career path that requires calculus in college
• Students have the option to take the AP exam

AP CALCULUS BC  (3177)
Prerequisite:  Pre-Calculus and/or AP Calculus AB
• May be used as 4th math credit for an Advanced Studies Diploma
• Follows the College Entrance Examination Board Syllabus
• College level course that requires fluency in algebraic and transcendental functions
• High concentration on limits, continuity, differentiation, integration, and applications
• Includes sequences, series, intervals of convergence, first order differential equations
• Designed for students planning a career path that requires calculus in college
• Students have the option to take the AP exam

AP STATISTICS  (3192)
Prerequisite:  Algebra II
• May be used as 4th math credit for an Advanced Studies Diploma
• Follows the College Entrance Examination Board Syllabus
• Presents concepts and techniques for exploring, collecting, and analyzing data, drawing conclusions, and making predictions
• Explore experimental design, produce models using probability and simulation, and select appropriate models for statistical inferences
• Applications will use a variety of disciplines including the sociology, allied health fields, business, economics, engineering, the humanities, physical sciences, journalism, communications, and liberal arts
• Students have the option to take the AP exam
SCIENCE CORE COURSES

Minimum Required to Graduate: 3 standard credits and 1 verified credit
SOL’s: Earth Science, Biology, Chemistry

Level 2 = Average, 0 wt
Level 3 = Honors, .5 wt
Level 4 and AP (Advanced Placement), 1.0 wt

BIOLOGY (4310)
Levels: 2, 3-Honors
- Biology is the science which deals with life
- Topics include specific organisms to the complex interrelationship of all living organisms, including man
- Minimum science required for Governor’s School

EARTH SCIENCE (4210)
Levels: 2, 3-Honors
- Earth Science deals with Earth and its place in the universe
- Topics included are geology, meteorology, oceanography, and astronomy

CHEMISTRY (4410)
Level: 3-Honors
Prerequisite: 1 credit of Algebra I & 1 credit of Geometry
Co-requisite: Algebra II or AFDA
- Chemistry is the science which deals with the composition of matter including the many physical and chemical changes which matter undergoes
- Experiments concerning such topics as the gas laws, acids, bases, solutions, and structure of matter
PHYSICS (4510)
Level: 3-Honors
Prerequisites: 1 credit each of Algebra I and Geometry
- Physics is the science that deals with the physical changes in matter and energy relationships
- Laboratory work will be completed by the students, which will help them to fit into today’s scientific world
- Topics are covered in a much more quantitative manner than in the earlier grades

SCIENCE ELECTIVES

EARTH SCIENCE II: INTRODUCTION to OCEANOGRAPHY (4250)
Level: 2, 3-Honors
Prerequisites: 1 credit of Earth Science
- This level 2 science course is designed for the average student who is interested in the ocean environment
- A survey of the history, instruments, and related sciences involved with oceanography will be presented
- Application of the above to the local area of Hampton Roads will involve student research and laboratory investigation

BIOLOGY II: ANATOMY/PHYSIOLOGY (4330)
Level: 3-Honors
Prerequisite: 1 credit of Biology
- Physiology is in the study of biological processes, activities, functions, and structures
- Chemical and physical principles are applied to the study of body systems in this advanced science course
- Many highly quantitative laboratory studies will give the student valuable background for premedical and other scientific careers

CHEMISTRY II: FORENSIC SCIENCE (4420) BHS only
Level: 3-Honors
Prerequisites: 1 credit each of Biology & Chemistry
- This course is a multidisciplinary laboratory course and will include concepts in chemistry, anatomy, physics, biology, mathematics, statistics, psychology, communications and law
- Students will gain an appreciation of scientific concepts that are applied to real world situations
- Emphasis will be placed on the role of chemical reactions and techniques used to analyze evidence
- There will be a strong focus on problem solving and synthesizing evidence-based conclusions
- After learning basic concepts, students will use critical thinking to explore scientific principles through forensic investigation of crime scenes
SCIENCE ADVANCED PLACEMENT COURSES

AP BIOLOGY (4370)
Prerequisites: 1 credit of Biology & Chemistry
• This course is offered for students who wish to complete a college-level course while in high school
• The course is offered to prepare students to take the Advanced Placement Examination
• A minimum of three hours of lecture and two hours of laboratory will be required per week
• All students have the option to take the AP exam

AP CHEMISTRY (4470)
Prerequisites: 1 credit each of Chemistry, Algebra I & Geometry
• This course is offered for students who wish to complete a college-level course while in high school
• The course is offered to prepare students to take the AP exam
• A minimum of three hours of lecture and two hours of laboratory will be required per week
• All students have the option to take the AP exam

AP PHYSICS I (4571)
Prerequisites: 1 credit each of Algebra I and Geometry
• This course is offered for students who wish to complete a college-level course while in high school
• The course is designed to correspond to a one-year college course in non-calculus based physics and focuses on a complete spectrum of the topics appropriate to Newtonian physics
• This course prepares the student to take the AP Physics I exam
• Successful completion of the AP Physics I exam could be accepted as college credit in courses in which non calculus based physics is appropriate

AP ENVIRONMENTAL SCIENCE (4270)
Prerequisites: 1 credit each of Biology, Earth Science, and Algebra I
Co-requisites: Chemistry and Algebra II
• The goal of this AP science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world
• Students will identify and analyze environmental problems, both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them
• AP Environmental Science focuses on the “real science” behind environmental problems and issues
• Laboratory and field study are important elements of the course
• All students enrolled in AP Environmental Science have the option to take the AP exam
• Students desiring to take AP Environmental Science who have not taken Earth Science must meet additional criteria. Please see your school counselor for details.
• All students enrolled in AP Physics I have the option to take the AP exam
SOCIAL STUDIES CORE COURSES
Minimum Required to Graduate: 3 standard credits & 1 verified credit
SOL’s: World Geography, World History I, World History II, VA/US History

Level 2 = Average, .0 wt
Level 3 = Honors, .5 wt
Level 4 and AP (Advanced Placement), 1.0 wt

WORLD GEOGRAPHY (2210)
Levels: 2, 3-Honors
• Study the world’s peoples, places, and environments, with emphasis on world regions
• Center on the world’s population and cultural characteristics, landforms and climates, economic development, and migration and settlement patterns
• Spatial concepts used to study interactions between humans and their environments
• Emphasis on application of geographic concepts and skills in daily life and application of geographic information to decision making

WORLD HISTORY I: WORLD HISTORY & GEOGRAPHY TO 1500 (2215)
Levels: 2, 3-Honors
• Explore the historical development of people, places, and patterns of life from ancient times until 1500 AD
• Investigate the origins, beliefs, traditions, customs, spread and effects of major world religions
• Compare selected civilizations in Asia, Africa, and the Americas in terms of chronology, location, geography, social structures, forms of government, economy, and contributions
• Study the origins of our heritage using inquiry, research, and technology skills
• Challenge students to think like historians using primary and secondary sources

WORLD HISTORY II: W HIS & GEOGRAPHY, 1500 - PRESENT (2216)
Levels: 2, 3-Honors
• Explore the historical development of people, places, and patterns of life from ancient times from 1500 AD to present
• Compare the locations and culture of empires in Western Europe, India, China, Japan, sub-Saharan African and Central America
• Analyze patterns of social, economic, and political change in the late Medieval period, including the emergence of nation-states
• Analyze the historical developments of the Renaissance and the Reformation
• Analyze the impact of European expansion into the America, Africa, and Asia
• Analyze scientific, political and economic changes since 1500 AD
• Study the origins of our heritage using inquiry, research, and technology skills
• Challenge students to think like historians using primary and secondary sources

VIRGINIA & U.S. HISTORY (2360)
Grade 11
Levels: 2, 3-Honors
• Learn political, economic, social, and cultural development of the US
• Trace historical development of American ideas and institutions from the Age of Exploration to the present
• Examine American culture through a chronological survey of major issues,
movements, people (individuals and groups), and events in US/VA history

- Emphasis on recent US history
- Challenge students to think like historians using primary and secondary sources

**VIRGINIA AND U.S. GOVERNMENT (2440)**

**Grade 12**  
Levels: 2, 3-Honors
- Examine fundamental constitutional principles, rights and responsibilities of citizenship, political culture, policy-making process at each level of government, and operation of the United States market economy
- Identify personal character traits that facilitate thoughtful and effective participation in the civic life of an increasingly diverse democratic society
- Discuss constitutional issues of governmental power and guarantees of civil liberties
- Engage in structured debates and simulations
- Apply critical thinking skills to evaluate news reports, advertisements, and election campaigns

**SOCIAL STUDIES ELECTIVES**

**AFRICAN AMERICAN STUDIES (2371)**  
Level 2
- One semester class (1/2 credit)
- Study the history and culture of early African civilization and empires
- Study the largest forced migration which sparked the creation of the New World
- Study African-American participation from the American Revolutionary War through the Civil Rights Movement
- Become familiar with the foundation of African American life today

**PSYCHOLOGY (2900)**

Level 2
- Explore basic theories and principles of psychology
- Gain understanding about personal capacities or growth
- Study individual and group behavior, the effect of internal and external stimuli, and the interactions of individuals
- Increase critical thinking and improve communication through demonstrations, experiments and simulations
- Emphasis on principles of learning, conditioning, memory and thought and stages of human development

**SOCIIOLOGY (2500)**

Level 2
- One semester class (1/2 credit)
- Study of people and their activities in the social group
- Learn about pioneers in the field and their methodologies
- Emphasis placed on concept of socialization from infancy to adulthood centering on the growth of self and influences shaping that growth
- Study the impact of institutions upon society

**SOCIAL STUDIES ADVANCED PLACEMENT COURSES**

**AP HUMAN GEOGRAPHY (2212)**
- Students must take the SOL end-of-course test for World Geography
- This course can substitute for World Geography
- Systematic study of patterns and processes that have shaped human understanding, use and alterations of Earth
- Apply spatial concepts and analysis to understand social organization and environmental consequences
- Identify and evaluate regions and the changing interactions between them
• Prepare for Advanced Placement examination
• Use advanced writing skills to analyze readings, maps, and spatial data
• Students have the option to take the AP Human Geography exam

AP WORLD HISTORY (2380)
• Students must take the SOL end-of-course test for World History II
• This course can substitute for World History II (World History from 1500 to Present)
• Develop greater understanding of the growth and spread of societies from 8000 B.C.E. to present
• Examine the nature of changes in global history the causes and consequences, and comparisons among major societies
• Understand how culture, institutions, technology and geography have shaped world history
• Study the origins of our heritage using inquiry, research, and technology skills
• Prepare for AP exams
• Use advanced writing skills to analyze readings including primary resources
• Students have the option to take the AP World History exam

AP UNITED STATES HISTORY (2219)
• Students must take the SOL end-of-course test for Virginia and United States History
• This course can substitute for Virginia and United States History, which is required for graduation
• Trace historical development of American ideas and institutions from colonization to the present
• Read historical material critically, weigh historical evidence, and arrive at conclusions
• Students have the option to take the AP American History exam

AP EUROPEAN HISTORY (2399)
• Students must take the SOL end-of-course test for World History II
• This course can substitute for World History II
• Providing basic narrative of events and movements in modern European History since 1450
• Principle themes include cultural, economics, political, and social developments which impact present-day society
• Analyze historical evidence and interpretation
• Demonstrate the ability to express historical understanding in writing
• Students have the option to take the AP European History exam

AP US GOVERNMENT and POLITICS (2445)
Grade 12
• This course can substitute for VA/US Government
• Study concepts used to interpret American politics
• Analyze case studies
• Explore institutions, groups, beliefs, and ideas that make up the American political reality
• Develop deep understanding of politics and government in the United States from different perspectives
• Prepare for AP exam
• Use advanced writing skills to analyze readings including primary resources, news reports, and election materials
• Students have the option to take the AP Government and Politics exam

AP COMPARATIVE GOVERNMENT & POLITICS (2450)
Grade 12
• This course can substitute for VA/US Government
• Introduces students to fundamental concepts used by political scientists to study the processes and outcomes in a variety of country settings
• Students will compare their own political system to others
• Prepare for AP Comparative Government & Politics exam
• Emphasis on concepts of comparative politics
• Students have the option to take the AP Comparative Government & Politics exam

AP MICROECONOMICS/AP MACROECONOMICS (2802/2803)
• Offered on alternating years
• Analyze the principles of economics that apply to an economic system
• Emphasize the study of national income and price determination
• Develop familiarity with performance measures, growth, and international economics
• Understand the global marketplace
• Understand government, business, and individual interaction within the market economy
• Emphasize functions of product markets, factor markets, and the role of government in promoting efficiency and equity in the economy
• Prepare for AP exam
• Use advanced writing skills to analyze readings and graphs
• Students have the option to take the AP Micro or Macro Economics exam

AP PSYCHOLOGY (2902)
• Study biological basis of behavior, developmental psychology, personality, testing and individual difference, treatment of psychological disorders, and social psychology
• Examines basic principles and theories of psychology
• Emphasis on learning and cognitive process, human development, understanding of basic problems of relationships to self and others, and choice selection
• Prepare for AP exam
• Use advanced writing skills to analyze readings
• Students have the option to take the AP Psychology exam
WELLNESS EDUCATION
Physical Education, Health & Driver’s Education
Graduation Requirements: 1 credit in Health Education (Health I and Health II) and 1 credit in Physical Education (PE I and PE II)

All Wellness Education Courses are Level 2
Level 2 = Average, .0 wt

HEALTH EDUCATION I (7320)
Level 2
- Credit: ½ credit required
- Students will study a variety of health concepts to enable them to set lifelong health goals. These concepts include Nutrition, Substance Abuse Prevention, Violence Prevention, Communicable Diseases, Cardiovascular System, First Aid, Community Health and Wellness and Family Life Education.
- Students will be trained in emergency first aid, cardiopulmonary resuscitation, and the use of automated external defibrillators, including hands-on-practice of the skills

HEALTH II & DRIVER EDUCATION (7425)
Level 2
- Credit: ½ credit required course
- The course is a combination of health and driver education
- Students will acquire an understanding of health and wellness concepts and knowledge. They will develop a conceptual understanding of the issues related to achieving and maintaining personal health. Topics include Violence Prevention, Living a Physically Active and Healthy Lifestyle, Consumer Health and Family Life.
- Drive Education classroom instruction prepares students for the driver education laboratory (Behind the Wheel) which is offered after school hours.
- Behind the Wheel program registrations can be completed at the home or mailed to: Hampton City Schools, Attention: Driver’s Education, 1 Franklin Street, Hampton, VA 23669
- Applications for Behind the Wheel may be secured from the school counseling department or the physical education department at your school.

PHYSICAL EDUCATION I (7310)
Level 2
- Credit: ½ credit required course
- PE I offers a variety of physical activities designed to encourage and prepare student to be active for life
- Activities may include but are not limited to sport activities, lifetime physical activities and fitness education
- Students will develop a personal fitness plan

PHYSICAL EDUCATION II (7410)
Level 2
- Credit: ½ credit required course
- PE II offers a variety of physical activities designed to promote lifetime activity
- Activities are designed to encourage students to become proficient in individual, dual or team sport, or other lifetime physical activities
- Students will continue to improve the development of a personal fitness program
VISUAL & PERFORMING ARTS

Required to Graduate: 1 standard credit in a Performing or Visual Arts course

Level 2 = Average, .0 wt
Level 3 = Honors, .5 wt
AP (Advanced Placement), 1.0 wt

PERFORMING ARTS: MUSIC
All music courses are one year. Their Performing Arts courses include four pathways, Instrumental Band, Guitar, Chorus, and Non-Performance Music Classes. Students are not required to remain in a specific pathway and can take crossover courses.

CO-CURRICULAR ACTIVITY
MARCHING BAND GRADES 9-12
This activity is open to all students enrolled in a band performance class. Participation in Marching Band is not a requirement to enroll in other band courses. Marching band is a co-curricular activity and accompanies specific band performance-class curriculums. Students attend performances to include, but are not limited to: football games, parades, community events, and field trips. After-school rehearsals are required. Performance attendance is required. Marching Band is not a class. No fine arts credit is earned for this activity.

BAND PERFORMANCE CLASSES

INTERMEDIATE BAND
Intermediate Level (9233)
Level 2
This class is for students with no band experience or who are adding a new instrument.
- Brass, Woodwind, and Percussion
- After-school rehearsals are required
- Performance attendance is required

CONCERT BAND – Advanced Level (9234)
Level 2
Prerequisite: Middle School band or approval of Band Director

SYMPHONIC BAND – Artist Level (9234)
Level 2 and honors credit available
Prerequisite: Audition and Approval of Band Director
- Students may earn an honor’s credit with successful completion of additional band portfolio requirements
- Brass-Woodwind
- Marching Band is required
- Marching Band is the lab to the Symphonic Band
- Honors event auditions are required
- Auditions occur second semester
- After-school rehearsals are required
- Performance attendance is required

PERCUSSION – DRUM LINE (9296)
Level 2
Intermediate through Artist Levels
Middle School percussion experience is strongly recommended.
Prerequisite: Training Audition and Approval of Band Director
- Students perform on all concert and marching percussion instruments
- Auditions occur second semester
- After-school rehearsals are required
- Performance attendance is required
JAZZ BAND GRADES 10 – 12
ARTIST LEVEL  (9296)
Level 2
Prerequisite: Audition and Approval of Band Director
• Brass-Woodwind-Percussion
• Students learn music theory, perform jazz repertoire, and develop ad-lib solo skills
• Auditions occur second semester
• After-school rehearsals are required
• Performance attendance is required

GUITAR PERFORMANCE CLASSES (Kecoughtan High School Only)

GUITAR I – Beginning Level  (9245)
Level 2
• No previous experience is necessary
• Beginning: note/chord reading, techniques, and music theory
• Students begin acoustic guitar in this class
• After-school rehearsals are required
• Performance attendance is required

GUITAR II – Intermediate Level  (9245)
Level 2
Prerequisite: Guitar I or approval of Guitar Director
• Intermediate: note/chord reading, technique, and music theory
• Students perform using acoustic guitar, mandolin, and bass guitar
• After-school rehearsals are required
• Performance attendance is required

GUITAR III – Advanced Level  (9245)
Level 2
Prerequisite: Audition and Approval of Guitar Director
Auditions are during second semester
• Advanced: harmonization, chord solos, and a variety of styles
• After-school rehearsals are required
• Performance attendance is required

GUITAR ENSEMBLE – Artist Level  (9250)
Level 2 and honors credit available

Prerequisite: Audition and Approval of Guitar Director
• Students may earn a honor’s credit with successful completion of additional choral portfolio requirements
• Artist: solos, ensembles, ad-lib, and sight-reading
• Auditions occur second semester
• After-school rehearsals are required
• Performance attendance is required

CHORUS PERFORMANCE CLASSES

MIXED CHOIR – Intermediate Level  (9282)
Level 2
• No previous experience is necessary
• After-school rehearsals are required
• Performance attendance is required

ACAPPELLA CHOIR – Intermediate Level  (9283)
Level 2
Prerequisite: Middle School chorus or approval of Chorus Director
• After-school rehearsals are required
• Performance attendance is required

CONCERT CHOIR – Advanced Level  (9283)
Level 2
• Audition and Approval of Chorus Director
• Auditions occur second semester
• After-school rehearsals are required
• Performance attendance is required

MEN’S CHORAL ENSEMBLE
Advanced Level  (9283)
Level 2
• Audition and Approval of Chorus Director
• Auditions occur second semester
• After-school rehearsals are required
• Performance attendance is required
WOMEN’S CHORAL ENSEMBLE
Advanced Level (9283)
Level 2
• Audition and Approval of Chorus Director
• Auditions occur second semester
• After-school rehearsals are required
• Performance attendance is required

SMALL VOCAL ENSEMBLE – Artist
Level (9280)
Level 2 and honors credit available
• Audition and Approval of Chorus Director
• Students may earn a honor’s credit with successful completion of additional guitar portfolio requirements
• Auditions occur second semester
• After-school rehearsals required
• Performance attendance is required

NON-PERFORMANCE MUSIC COURSES (Courses may not be offered at every high school)

AP MUSIC THEORY GRADES 10-12 (9226)
Level 2
• Introduces auditory skills and advanced composition
• Students are prepared for the AP Music Theory Exam if they elect to take the exam
• Course content is the equivalent of the second year of college music theory

ELECTRONIC MUSIC PRODUCTION (9296)
Level 2
Phoebus and Kecoughtan only
NO previous music experience required
Students will use a variety of computer software and cloud based music technology programs to create music applicable to all areas of the music industry.
• Work at a digital audio station
• Engage in several types of audio and MIDI recording, editing, and mixing
• Provides students a foundation in digital mixing and recording for a possible career in the music industry

VISUAL ART COURSES
The Visual Arts curriculum offers courses in four pathways.
Students are not required to remain in a specific pathway and may take crossover courses.
The Art Foundations pathway addresses the students interested in art-making, but do not desire the focused mastery content of advanced drawing or advanced painting skills and concepts.
The Mastery Artistic pathway addresses the needs of those students interested in further developing their artistic skills and style.
Concentrated instruction in the traditional media of drawing and painting is geared to help the student advance to a mastery level of personal skill.
The Art History pathway addresses students interested in art and its historical significance without wanting a full complement of studio coursework. Minimal studio work is used to enhance the course content, not as a means to assess the student’s artistic ability.
The Art Technology pathway addresses the needs of those students interested in computer generated art and can express their creativity through storyboarding and manipulation of 3D computer software and tools, as well popular graphic design software packages.

ART FOUNDATION COURSES
These courses teach design concepts and skills through manipulative production. No pre-requisites are required for these courses. Note that some are semester courses and may not be offered each semester.

ART FOUNDATIONS: 2D (9120)
Level 2
• One semester class (1/2 credit)
• Hands on art class that investigates the two-dimensional nature of art
• Learn how the elements and principles of art are used to create art
• Develop foundational skills using a variety of media such as pencil, ink, marker, paint, pastels, etc.
• Develop imagination and problem-solving skills
• Develop observational skills
• Expand vocabulary and writing skills through analyzing and critiquing artwork
• Explore art history and aesthetics in two-dimensional artwork

ART FOUNDATIONS: 3D (9120)
Level 2
• Once semester class (1/2 credit)
• Hands on art class that investigates the three-dimensional nature of art
• Learn how the elements and principles of art are used to create art
• Develop foundational skills using a variety of three-dimensional media such as clay, wire, wood, textiles, etc.
• Develop imagination and problem-solving skills
• Expand vocabulary and writing skills through analyzing and critiquing artwork
• Explore art history and aesthetics in three-dimensional art work

ART FOUNDATIONS: CULTURAL ART FORMS (9160)
Level 2
• Project-based art class that investigates the history, aesthetics, and culture of crafts in a studio setting
• Will learn how the elements and principles of art are used to create a variety of crafts
• A variety of experiences will be offered such as jewelry-making, macramé, calligraphy, quilting, clay, textiles, leather-working, mask-making, paper making, etc. to create artwork in the traditions of various cultures from around the world
• Artwork will be both two-dimensional and three-dimensional
• Expand vocabulary and writing skills through analyzing and critiquing artwork

SCULPTURE (9145)
Level 2
• Emphasis is on the design process
• Will apply design principles to creating 3D works of art
• Explore a variety of media such as clay, wood, wire, etc.
• Explore three-dimensional artists and art history
• Expand vocabulary and writing skills through analyzing and critiquing artwork
• Create a body of work suitable for a three-dimensional portfolio

MASTERY ARTISTIC ART COURSES
These courses are designed for the student who has an advanced level of knowledge and technical skill. There are no pre-requisites, but students must show evidence of advanced knowledge and technical skill in drawing and/or painting and receive permission or a recommendation from the art instructor to take the class. These are not introductory courses.

DRAWING & PAINTING FUNDAMENTALS (9130)
Level 2
This course is designed as a pathway for students who are interested in continuing to AP Studio Art with an emphasis in a Drawing or 2D Design portfolio submission.
• Course content is intended to address drawing and painting techniques
• Students should expect to continue work on artwork outside of scheduled class time
• Students will develop a personal style of drawing and painting
• Emphasis on technical drawing and painting skills
• Observational skills and life drawing skills are emphasized
• Will develop figure drawing skills through the use of models
• Will study and apply a variety of drawing and painting media
• Expand vocabulary and writing through analyzing and critiquing artwork
• Create a body of work suitable for a drawing or 2D design portfolio

EXPRESSIVE DRAWING & PAINTING (9140)
Level 2
This course is designed as a pathway for students who are interested in continuing to AP Studio Art with an emphasis in a Drawing or 2D Design portfolio submission.
• Course content is intended to address advanced drawing and painting theory and techniques
• Students should expect to continue work on artwork outside of scheduled class time
• Students will develop a personal and expressive style of drawing and painting
• Emphasis on technical drawing and painting skills
• Color theory and its application to creating art is further developed
• Will study and apply a variety of painting media
• Expand vocabulary and writing through analyzing and critiquing artwork
• Create a body of work suitable for a Drawing or 2D design portfolio

ART PORTFOLIO PREP (NON-AP) (9147)
Level 2
This course is designed as a pathway for students who are interested in continuing to AP Studio Art with an emphasis in a Drawing, 2D Design, or 3D portfolio submission.
• Course content is rigorous and intended to address advanced drawing, advanced painting, color theory, and three-dimensional techniques
• Students should expect to continue some work on their artwork outside of scheduled class time
• Commitment to rigorous completion of quality work
• Explore areas of personal quality within the artwork
• Demonstrate proficiency in formal, technical, and expressive means within the artwork
• Expand vocabulary and writing skills through analyzing and critiquing artwork
• Create a body of work suitable for an AP portfolio and college portfolio submission

AP STUDIO ART – 2D, 3D, or DRAWING PORTFOLIO (9149)
Students are required to complete a body of work that fulfills the AP Studio Course Requirements for portfolio submission, even if the student elects not to submit the AP portfolio as an exam.
• Students should be aware that this class requires advanced artistic knowledge, techniques, and skills
• Commitment to rigorous coursework and to complete a body of quality work
• Students should expect to continue work on their artwork outside of scheduled class time
• Explore areas of personal quality within the artwork
• Determine and explore an area of concentration focusing on a personal area of interest
• Demonstrate proficiency in formal, technical, and expressive means within the artwork
• Expand vocabulary and writing skills through analyzing and critiquing artwork
• Create a body of work suitable for an AP portfolio and college portfolio submission

ART HISTORY COURSES
These courses provide an alternative for those students interested in art, but do not desire the experience of concentrated studio work.
ART APPRECIATION (9197)
Level 2
- One semester class (1/2 credit)
- Introductory course to understand art-making, how to talk about art, and a brief history of art
- Learn to view, analyze, and critique art and understand how elements and principles of art are used to create works of art
- Explore how art history has evolved
- Participate in hands-on activities to enhance learning

ART HISTORY (NON-AP)
MODERN ART (9170)
Level 2
- One semester class (1/2 credit)
- This course will focus on the styles and movements of modern art, which include movements current at the present time
- Course readings that complement the subject matter are required
- Hands-on activities to enhance learning
- Expand vocabulary and writing skills through analyzing and critiquing artwork

AP ART HISTORY (9151)
- College level course spanning the history of art beginning with prehistoric and continuing through the present
- Understand and analyze the role of architecture, sculpture, painting, and other art forms within historical and cultural contexts
- Analyze and critique artists, art styles, and art movements
- Commitment to rigorous academic work which meets college standards
- Course readings and writings are required
- Expand vocabulary and writing skills through analyzing and critiquing artwork
- Participation in field trips is required
- Students have the option to take the AP Art History exam

ART TECHNOLOGY COURSES
Students interested in art and technology will find a pathway in the Computer Animation and Computer Graphic Design offerings.

COMPUTER GRAPHIC DESIGN (9181)
Level 2
The creation of quality art is accomplished through technology and appropriate software. Students will see how technology and traditional artwork can work together to create art.
- Apply the design principles to artwork created using computer graphic software
- Explore concepts of two-dimensional art and design
- Studio projects emphasize the print media and real life applications in graphic art and illustration design fields
- Commitment to rigorous completion of quality work
- Develop technology and software skills
- Develop vocabulary skills while analyzing and critiquing artwork
- Create a body of work for a digital portfolio

DIGITAL MEDIA AND ENTERTAINMENT ARTS (9182)
Level 2
This course introduces the student to 2D and 3D digital media as they relate to the entertainment industry. Using current technologies and industry standard software coupled with art design principles, students will sharpen their problem solving and critical thinking abilities while creating 2D and 3D digital and animation projects.
- Explore the history of animation and how it has evolved over time
- Learn and create using 2D and 3D animation media principles
- Develop digital photography design skills and explore special effects
- Explore game design techniques and create a game that is publish-ready
- Develop technology and software skills
• Create a body of work for a digital portfolio

3D COMPUTER ANIMATION
LEVEL I (3180)
Level 2
This course introduces fundamental 3D theories and principles of computer modeling and animation. Students will use current industry standard software to gain working knowledge of computer animation processes.
• Commitment to rigorous completion of quality animation work
• Explore concepts of 3D animation using the computer
• Learn the basics of modeling, to include textures, lighting, basic animation skills, and rendering objects
• Develop 3D models/characters and learn to create virtual environments in which these models move
• Develop storyboards and analyze story lines
• Develop vocabulary skills and analyze artwork
• Create a body of work for a digital portfolio
• Opportunity for Maya certification

3D COMPUTER ANIMATION
LEVEL II (3181)
Level 2
Prerequisite: Successful completion of 3D Computer Animation – Level I
This course builds on the digital modeling and animation concepts learned in the Level I course. Students will use current industry standard software to gain a more advanced knowledge of 3D modeling and simulation within virtual environments. Students will focus on developing expertise using more advanced tools and techniques.
• Apply basic concepts learned in the Level I course
• Commitment to rigorous completion of quality animation work
• Create advanced character modeling and layout techniques
• Use advanced features of the animation program
• Apply special effects, such as fire or explosions
• Develop storyboards and analyze story lines
• Develop vocabulary skills and analyze artwork
• Create a body of work for a digital portfolio
• Opportunity for Maya certification
FOREIGN LANGUAGE COURSES
Modern Foreign Language includes French I-V, German I-IV and Spanish I-V
French I-V, 5110, 5120, 5130, 5140, 5150
German I-IV, 5210, 5220, 5230, 5240
Spanish I-V, 5510, 5520, 5530, 5540, 5550

All Foreign Language courses are Honors Level except for Years V and they are AP Level
Level 3 = Honors, .5 wt
AP (Advanced Placement), 1.0 wt

MODERN FOREIGN LANGUAGE I
Level 3
- Exchange simple spoken and written information in the target language
- Sustain brief oral and written exchanges in the target language, using familiar phrases and sentences
- Understand simple spoken and written target language presented through a variety of media and based on familiar topics
- Use verbal and nonverbal cues to understand simple spoken and written messages in the target language
- Present information orally and in writing in the target language, using a variety of familiar vocabulary, phrases, and structural patterns
- Present rehearsed material in the target language, including brief narratives, monologues, dialogues, poetry, and songs
- Develop an awareness of common perspectives, practices, and products of the cultures in which the target language is spoken
- Recognize that perspectives, practices, and products of the cultures studied are interrelated
- Connect information about the target language and culture(s) with concepts studied in other subject areas
- Compare basic elements of the target language to those of English and other languages
- Demonstrate understanding of the significance of culture through comparisons between the cultures studied and the cultures of the United States
- Explore situations in which to use target-language skills and cultural knowledge beyond the classroom setting for recreational, educational, and occupational purposes

MODERN FOREIGN LANGUAGE II
Prerequisite: Successful completion of Modern Language I
Level 3
- Exchange spoken and written information and ideas in the target language
- Initiate, sustain, and close brief oral and written exchanges in the target language, using familiar and recombined phrases and sentences
- Understand basic spoken and written target language presented through a variety of media in familiar contexts
- Use verbal and nonverbal cues to interpret spoken and written texts in the target language
- Present information on familiar topics orally and in writing in the target language, combining learned and original language in connected sentences and paragraphs
- Present in the target language rehearsed and unrehearsed material, including skits, poems, plays, short narratives, and songs that reflect the target culture
- Demonstrate understanding of perspectives, practices, and products of cultures studied and the ways these cultural aspects are interrelated
- Use information acquired in the study of the target language and information acquired in other subject areas to reinforce one another
• Develop a deeper understanding of English and other languages through study of the target language
• Demonstrate understanding of similarities and differences between the cultures studied and those of the United States
• Apply target-language skills and cultural knowledge in opportunities beyond the classroom setting for recreational, educational, and occupational purposes

MODERN FOREIGN LANGUAGE III
Level 3
Prerequisite: Successful completion of Modern Language II
• Engage in original and spontaneous oral and written communications in the target language
• Initiate, sustain, and close oral and written exchanges in the target language, applying familiar vocabulary and structures to new situations
• Understand spoken and written target language presented through a variety of media and based on new topics in familiar contexts
• Present information orally and in writing in the target language, recombining familiar elements to create original sentences in paragraphs that are increasingly complex
• Present in the target language student-created and culturally authentic stories, poems, and skits
• Examine in the target language the interrelationships among the perspectives, practices, and products of the cultures studied
• Use the target language to reinforce and broaden understanding of connections between the target language and other subject areas
• Strengthen knowledge of English and other languages through the study and analysis of increasingly complex elements of the target language
• Investigate and discuss why similarities and differences exist within and among cultures
• Apply target-language skills and expand cultural understanding by accessing information beyond the classroom setting for recreational, educational, and occupational purposes

MODERN FOREIGN LANGUAGE IV
Level 3
Prerequisite: Successful completion of Modern Language III
• Engage in and discuss a variety of topics in both oral and written forms of communication
• Demonstrate skills necessary to sustain extended oral and written exchanges in the target language
• Understand spoken and written target language found in a variety of authentic sources
• Relate information in the target language, combining learned and original language in oral and written presentations of extended length and complexity
• Produce and present original essays, poetry, plays, podcasts, and stories in the target language
• Analyze how various perspectives reflect the practices and products of the cultures studied
• Demonstrate increased understanding of the connections between content studied in the target-language class and content studied in other subject areas
• Expand understanding of English and other languages through study and analysis of increasingly complex elements of the target language
• Identify and discuss cultural similarities and differences in social, economic, and political relationships in the global community
• Apply more extensively target-language skills and expand cultural understanding in opportunities beyond the classroom setting for recreational, educational, and occupational purposes
MODERN FOREIGN LANGUAGE V
Level 4
Prerequisite: Successful completion of Modern Foreign Language IV
Students will continue to develop and refine the skills that were presented in Modern Language IV. Emphasis continues to be placed on the use of the target language in the classroom as exclusively as possible, as well as on the use of authentic materials to learn about the target language and cultures.

- Engage in and discuss a variety of topics in both oral and written forms of communication
- Demonstrate skills necessary to sustain extended oral and written exchanges in the target language
- Understand spoken and written target language found in a variety of authentic sources
- Relate information in the target language, combining learned and original language in oral and written presentations of extended length and complexity
- Produce and present original essays, poetry, plays, podcasts, and stories in the target language
- Analyze how various perspectives reflect the practices and products of the cultures studied
- Demonstrate increased understanding of the connections between content studied in the target-language class and content studied in other subject areas
- Expand understanding of English and other languages through study and analysis of increasingly complex elements of the target language
- Identify and discuss cultural similarities and differences in social, economic, and political relationships in the global community
- Apply more extensively target-language skills and expand cultural understanding in opportunities beyond the classroom setting for recreational, educational, and occupational purposes

LATIN I (5310)
Level 3
- Understand simple written Latin texts about a variety of topics
- Use Latin orally and listen to and write Latin as part of the language-learning process
- Develop an awareness of perspectives, practices, and products of Roman culture
- Recognize that perspectives, practices, and products of Roman culture are interrelated
- Connect information about the Latin language and Roman culture with concepts studied in other subject areas
- Compare basic elements of the Latin language to those of the English language
- Demonstrate an understanding of the significance of culture through comparisons of the cultures of Rome and the United States
- Begin apply knowledge of the Latin language and Roman culture beyond the classroom setting to explore recreational, educational, and occupational opportunities

LATIN II (5320)
Level 3
Prerequisite: Successful completion of Latin I
- Understand written Latin texts based on various topics
- Continue to use Latin orally and listen to and write Latin as part of the language-learning process
- Demonstrate understanding of the perspectives, practices, and products of Roman culture and the ways these cultural aspects are interrelated
- Identify ways in which knowledge gained from the study of Latin reinforces and enhances knowledge gained in other classes and vice versa
- Develop a deeper understanding of English and other languages through the study of Latin
- Demonstrate understanding of cultural similarities and differences
between the Roman world and the United States

- Apply knowledge of the Latin language and Roman culture in opportunities beyond the classroom setting for recreational, educational, and occupational purposes

LATIN III (5330)
Level 3
Prerequisite: Successful completion of Latin II
- Comprehend and interpret adapted and authentic Latin texts based on a variety of topics
- Increase skills in reading and interpreting Latin orally
- Examine interrelationships among perspectives, practice, and products of Roman civilization
- Reinforce and broaden knowledge of connections between Latin and other subject areas
- Strengthen knowledge of the English language through analysis of complex linguistic and syntactical elements of Latin
- Discuss why similarities and differences exist within and among cultures
- Continue to apply knowledge of the Latin language and Roman culture beyond the classroom setting for recreational, educational, and occupational purposes

LATIN IV (5340)
Level 3
Prerequisite: Successful completion of Latin III
- Interpret and analyze authentic Latin texts in selected genres
- Refine skills in reading and interpreting Latin orally
- Discuss how various perspectives reflect the practices and products of the Roman world
- Demonstrate increased understanding of the connections between content studied in Latin class and content studied in other subject areas
- Expand understanding of the English language and literature through analysis of the complex linguistic and syntactical elements of Latin
- Discuss social, economic, political, and artistic influences of the Roman world on the modern global community
- Apply advanced knowledge for the Latin language and Roman culture beyond the classroom setting for recreational, educational, and occupational purposes

AP SPANISH LANGUAGE (5570)
Students will develop proficiency and integrate their language skills using authentic materials and resources. AP Spanish Language will help students demonstrate their level of Spanish proficiency across three communicative models (Interpersonal, Interpretive, and Presentational) and in the five goal areas of Communication, Cultures, Connections, Comparisons, and Communities. The goals of this course are to:
- Develop strong communicative skills
- Develop a strong command of Spanish linguistic skills accuracy and fluency
- Comprehend Spanish intended for native speakers in a variety of settings, types of discourse, topics, styles, registers, and broad regional variations
- Produce Spanish comprehensible to native speakers in a variety of settings, types of discourse, topics, and registers
- Acquire information from authentic sources in Spanish
- Be aware of some cultural perspectives of Spanish-speaking peoples
ENGLISH as a SECOND LANGUAGE
(ESL Center is located at Hampton High School). Students are evaluated prior to enrollment in the ESL program. This testing determines eligibility, as well as, placement level. Adjustments may be made to the ESL sequence in order to meet the needs of the individual student. The ESL Office must approve such adjustments.

LEVEL I
• Foreign Language ESL
• Foreign Language ESL
• English ESL

LEVEL II
Foreign Language ESL
• Foreign Language ESL
• English ESL

LEVEL III
• Foreign Language ESL
• English ESL

LEVEL IV
• Foreign Language ESL
• English ESL

MONITORING STATUS 1& 2
• No direct services will be provided for this student; however, the individual student will be closely monitored for academic success

CAREER & TECHNICAL EDUCATION (CTE)
Required to graduate: 1 Fine Art or 1 CTE
Level 2 = Average, .0 wt
Level 3 = Honors, .5 wt

CTE courses meeting the graduation requirements are offered in Business & Information Technology and Engineering Education, Family & Consumer Science, Health & Medical Sciences, Junior Reserve Officers Training Corps, Marketing, Technology and Engineering Education, and Trade & Industrial Education.
CTE courses:
• Prepare students for employment
• Provide knowledge and skills through classroom, laboratory and job-site experiences
• May qualify for dual enrollment at TNCC
• Are taught using methods such as project-based learning, design-based learning, and Virtual Enterprise
• Provide the foundation for industry certification and/or licenses

• Offer co-curricular student organizations and club activity

BUSINESS & INFORMATION TECHNOLOGY

ECONOMICS & PERSONAL FINANCE (6120)
Grades 10, 11, 12
Level 2
• Graduation Requirement
• Students navigate financial decisions, learn to make informed decisions related to career exploration, budgeting, banking, credit, insurance, spending, taxes, saving, investing,
buying/leasing a vehicle, living independently, and inheritance
• Develop financial literacy skills necessary for independence and success
• Develop understanding of economic principles
• Learn the basics of responsible citizenship and career success
• Study basic occupational skills and concepts in preparation for entry-level employment in the field of finance
• Earn two industry credentials (Required: WISE financial Literacy and Virginia Workforce Readiness)
• The course incorporates all economics and financial literacy objectives included in the Code of Virginia §22.1-200-038
• Meets graduation requirements for class graduates of 2015 and beyond
• Option to take course as pass/fail or letter grade

ACCOUNTING (6320)
Level 2
Prerequisite: Algebra I with a grade of “C” or better
• Learn generally accepted accounting principles and the need for standard financial procedures
• Learn financial management and records management for business and home
• Learn to use accounting software and spreadsheets
• Learn to evaluate accounting records

ACCOUNTING ADVANCED (6321)
Level 2
Prerequisite: Accounting
• Learn to automate and interpret payroll, inventory, accounts payable, and accounts receivable. Learn management of financial records through business activities, partnership and corporate accounting, general ledger, and cost accounting

BUSINESS VIRTUAL ENTERPRISE (6135) Grades 11 & 12
Level 2
Prerequisite: Two business classes
• Acquire an overview of national and international business
• Explore the social and economic environments of business
• Learn facts about business ownership, finance, communications, human resources, and management functions
• Participate in creating and running a virtual business
• Dual Credit opportunity with TNCC

COMPUTER INFORMATION SYSTEMS (6612)
Level 2
Prerequisite: Keyboarding Applications or Digital Input Technologies
• Industry certification testing offered; course may be used for SOL verified credit when student passes industry test
• Learn computer terminology and develop proficiency in using spreadsheet, work processing, database management, and graphics software
• Explore applications using presentation and desktop publishing software
• Learn the fundamentals of Windows and programming concepts
• Learn many areas of MS Office
• Dual Credit opportunity with TNCC

COMPUTER INFORMATION SYSTEMS, ADVANCED (6613)
Level 2
Prerequisite: Computer Information Systems
• Industry certification testing offered; course may be used for SOL verified credit when student passes industry test
• Evaluate software programs for features and functionality
• Create professional documents demonstrating principles of layout design and desktop publishing
• Use computer peripherals such as scanners, digital cameras, and video devices to produce multimedia presentations or interactive web pages
• Analyze scanned/digitized audiovisual elements, documents, and electronic graphs that may be used legally but are ethically questionable
• Prepare for and test for MS Office Specialist certifications with teacher recommendation

INFORMATION TECHNOLOGY (IT) FUNDAMENTALS (6670)
Level 2
• Use MS Office applications
• Investigate careers in Information Technology
• Maintain, upgrade, and troubleshoot computers
• Understand network and Internet fundamentals
• Understand programming basics
• Apply basics of web page design
• Use graphics and interactive media
• Internet and Computing Core Competency (IC3) certification testing is required (pass all three)

PROGRAMMING (6640)
Level 2
Prerequisite: Algebra I (C or better)
• Students will explore programming concepts, 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
• Students employ HTML or JavaScript to create Web pages

PROGRAMMING, ADVANCED (6641)
Level 2
Prerequisite: Programming
• Students use object-oriented programming to develop database applications
• Students will create interactive multimedia applications including game applications, mobile applications, and web applications

DESIGN, MULTIMEDIA, AND WEB TECHNOLOGIES (6630)
Level 2
Prerequisite: Keyboarding, Keyboarding Application, or Computer Information Systems
• Develop proficiency in using Adobe software to create a variety of business publications
• Work with hardware and software to develop interactive multimedia presentations
• Design and produce web pages using HTML, and web site design software
• Design and create multimedia presentations and projects

DESIGN, MULTIMEDIA, AND WEB TECHNOLOGIES ADVANCED (6631)
Level 2
Prerequisite: Design, Multimedia, and Web Technologies
• Industry certification testing offered; course may be used for SOL verified credit when student passes industry test
• Design and produce more advanced web sites using HTML, Cascading Style sheets, JavaScript, and Adobe Dreamweaver
• Design and create advanced desktop publishing projects
• Design and create advanced interactive multimedia projects
COMPUTER NETWORK SOFTWARE OPERATIONS (6650)
Level 2
Prerequisite: Information Technology Fundamentals or Computer Information Systems
- Students will learn many aspects of computer support and network administration
- Create peer-to-peer network systems and client server networks
- Install and configure network cards and connect them to networks
- Install the operating system, set up and manage accounts, load software, and establish and implement security plans

COMPUTER NETWORK SOFTWARE OPERATIONS, ADVANCED (6651)
Level 2
Prerequisite: Computer Network Software Operations
- Students will learn aspects of network administration, focusing on the management and support of network users and systems
- Topics covered include the responsibilities of computer professionals, training end users, evaluating new technology, developing system policies, troubleshooting workstations, managing network services and protocols
- Students will learn troubleshooting techniques for systems and client-server networks, 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

AP COMPUTER SCIENCE PRINCIPLES (3185)
Bethel and Kecoughtan High School Only
Grades: 11-12
Prerequisite: Information Technology Fundamentals or Programming
- Explore digital information including the technical challenges and questions that arise from the need to represent digital information in computers and transfer it between people and computational devices
- Invent solutions and protocols to many of the problems that arise in the structure and function of the Internet
- Learn fundamental programming with an emphasis on solving problems and writing code in teams
- Learn to digitally manipulate data, visualize it, identify patterns, trends, and possible meanings that are important practical skills computer scientists do everyday
- Course material emphasizes those concepts outlined by the College Board and prepares students to take the Advanced Placement Computer Science test

SENIOR MENTORSHIP (9824)
Level 2
- Seniors may gain experience in a chosen career path by participating in a mentorship
- Non-paid activities will be provided by local business and industry
- 140 mentorship hours and a culminating activity are required
- Students must submit an application, which is available in the guidance office
- Students must be 16, and have a 2.5 grade point average, good attendance, good discipline record,
and able to provide own transportation
• A coordinator will assist in placement and follow-up
• Option to take course as pass/fail or letter grade

FAMILY AND CONSUMER SCIENCES

COLLEGE AND CAREER PATHWAYS (8226)
Level 2
• One semester class (1/2 credit)
• Career research will be conducted on 3 most suitable careers for each student
• SAT applications will be completed
• Resumes, cover letters and job applications will be completed
• Learn to interview with college and business staff
• Research academic life after high school (apprenticeships, colleges, trade schools, and military)
• Learn to search and navigate financial aid, scholarships and grants
• Develop an education plan and career-planning portfolio including short and long-term goals
• Consider factors to establish credit and acquire loans for automobiles, mortgages, etc.

LIFE PLANNING (8227)
Level 2
• This course emphasizes critical thinking and practical problem solving through relevant life applications
• Develop skills to face a variety of challenges of today
• Develop a life-management plan which includes career, community, and life connections
• Apply problem-solving processes to real life situations
• Create and maintaining healthy relationships
• Develop strategies for lifelong career planning
• Develop a financial plan

• Learn to maintain individual and family wellness
• Demonstrate leadership within the community

PARENTING (8231)
Level 2
• One semester class (1/2 credit)
• Assess the impact of the role of parenting in society
• Learn to take responsibility for individual growth within the parenting role
• Prepare for healthy emotional and physical beginning for parent and child
• Meet developmental needs of children and adolescents
• Build positive parent-child relationships
• Learn positive guidance techniques and discipline to promote self-discipline, self-respect, and socially responsible behavior
• Learn to obtain parenting information, support, and assistance
• Plan ways that families and society can share in nurturing children and adolescents
• Use critical thinking, practical problem solving, and entrepreneur opportunities within the area of parenting responsibilities and education
• Use mathematics, science, and communication as it relates to the parent role

RELATIONSHIPS (8223)
Level 2
• One semester class (1/2 credit)
• Learn to strengthen knowledge of yourself, clarify personal values, and understand personal relationships
• Analyze the significance of the family, development throughout a person’s life span, and factors that build and maintain healthy relationships
• Develop communication patterns that enhance relationships and effectively resolve conflict
• Learn to manage work and family roles
• Identify responsibilities and analyze social forces that influence families throughout life

NUTRITION AND WELLNESS (8229) Level 2
• Learn decision-making skills that promote wellness and good health
• Obtain and safely store food for self and family
• Prepare and serve nutritious meals and snacks
• Select and use equipment for food preparation
• Emphasis is placed on exploratory skills used in food service

INDEPENDENT LIVING (8219) Level 2
Develop successful strategies to:
• Live independently
• Navigate and problem-solve relationships
• Become financially literate
• Manage life resources (apparel, nutrition, wellness, and housing)
• Develop leadership skills to reach individual goals
• Plan for careers
• Learn consumer choices in a global environment

CULINARY ARTS, INTRODUCTION (8250) Kecoughtan and Phoebus High School only Level 2
• Class is designed to explore careers in culinary arts such as sous chef, pastry chef, and executive chef
• Students work in a commercial kitchen and prepare food on a small scale
• Learn customer service and food service employability skills

CULINARY ARTS I (8275) Phoebus High School Blue Phantom Inn Level 2
• Class meets every day (students earn 2 credits)
• Preference given to students who completed Intro to Culinary Arts
• This is the first year of a two-year occupational program designed to prepare students for occupations in the foods service industry
• Study the care and use of institutional foods equipment, safety requirements, health practices, sanitation and storage of food
• Explore food career paths
• Learn customer service, proper dress, and manners
• Study basic skills in food preparation and waiter/waitress training
• Earn ServSafe food handler certification (requirement)

CULINARY ARTS II (8276) Phoebus Blue Phantom Inn Level 2
Prerequisite: Culinary Arts I, ServSafe Food Handler certification
• Class meets every day (students earn 2 credits)
• This is the second year of a two-year occupational program designed to prepare students for food industry occupations
• Emphasis is on quantity cookery
• Learn the operation of a food establishment and catering techniques
• Study cost analysis and restaurant management in a working restaurant
• Create menus, work schedules, and assign staff to duties in a working restaurant
• Earn ProStart certification and ServSafe management certification (at least one is required)
CUL ARTS SPECIALIZATION (8279)
Level 2
½ credit, 2 credits with co-op
Suggested Grade Level: 12
Prerequisites: At least two ServSafe and/or ProStart Certificates, Instructor Approval
• Enhance skills planning menus, applying nutritional principles in retail restaurant, implementing sanitation and safety standards, and exploring careers
• Specialize in one of the following food-preparation techniques: Baking and Pastry, Catering/Banquet, Managing a Restaurant/Business, or Quantity Foods
• Emphasis is on critical thinking, practical problem solving, and entrepreneurial opportunities within the field of culinary arts
• Combine classroom instruction and supervised on-the-job training is an approved position with continuing supervision throughout the school year

FASHION CAREERS I (8280)
Kecoughtan High School only
Level 2
• Learn the apparel and accessories industry
• Develop technical skills in design
• Design and construct apparel items
• Learn fabrics, color, texture, pattern-making, tailoring, industrial sewing, computer-aided design, and customer service
• Learn human physiology and anatomy as it relates to clothing

FASHION CAREERS II (8281)
Kecoughtan High School only
Level 2
Prerequisites: Fashion Careers I
• Learn the apparel and accessories industry
• Continue to develop skills in fashion illustrating, draping, pattern making, garment construction, and compilation of a portfolio
• Focus on technical skills identified as essential for careers in the fashion industry

JUNIOR RESERVE OFFICERS TRAINING CORPS (JROTC)
No obligation to the military service or college ROTC is incurred, although advanced standing can be earned. Uniforms are provided.
All JROTC Courses are Level 2

JROTC-MILITARY SCIENCE
No obligation to the military service or college ROTC is incurred, although advanced standing in either may be earned. Uniforms are provided.
• Study basic U.S. citizenship rights and responsibilities, history, communication techniques, disciplined study habits, management skills, map reading, and physical fitness
• Learn leadership skills, military customs and courtesies, proper uniform wear, and personal appearance guide lines within leadership lab, drill, and military ceremonies
• All students are expected to meet their appropriate rank for a cadet with each year and must agree to adhere to JROTC dress, appearance, and conduct standards (including academics)

JROTC I (7913)
Any student may enroll. Students will follow a set leadership curriculum and are expected to abide by curriculum requirements.

JROTC II (7916)
Prerequisite: JROTC I
Any student may enroll. Second Year Cadets are expected to meet all diploma and rank requirements and be on time graduate.
**JROTC III (7918)**  
**Prerequisites:** JROTC II and Instructor Approval  
Students must have successfully completed first year of JROTC and achieved an appropriate rank (per service branch requirement), maintained at least a 2.0 GPA.

**JROTC IV (7919)**  
**Prerequisites:** JROTC III and Instructor Approval  
Selection based on the needs of the unit, the cadet’s demonstrated performance, and desire to remain within JROTC. Cadets requesting JROTC IV must have demonstrated leadership ability within JROTC, demonstrate they are highly motivated to lead, and are actively seeking careers within the United States Armed Forces. Cadets will be responsible for assisting the class instructors in day-to-day operations of the unit and oversee training of junior cadets. Cadets must have achieved appropriate rank for a fourth year cadet, maintained at least a 2.0 GPA, and will be eligible for the most senior cadet leadership positions within the unit.

**MARKETING**

**INTRODUCTION TO MARKETING (8110)**  
Level 2  
- Acquire an understanding of marketing and its importance  
- Prepare for entry-level marketing employment  
- Develop social, economic, mathematical, marketing, job search, and occupational decision-making competencies for employment in retail, wholesale, or service business  
- Combine classroom instruction and a minimum of 90 hours of occupational experiences

**MARKETING, COOPERATIVE EDUCATION (8120)**  
Level 2  
- Students may earn 2 credits with work experience completion  
- Industry certification testing offered; course may be used for SOL verified credit when student passes industry test  
- Study the functions in the marketing of goods and services  
- Develop the competencies for successful marketing employment  
- Develop social and economic competencies in conjunction with marketing competencies  
- Combine classroom instruction and a minimum of 396 hours of continuous, supervised on-the-job training when participating in cooperative education

**MARKETING ADVANCED COOPERATIVE EDUCATION (8130)**  
Grades 11 & 12 only  
Level 2  
**Prerequisite:** Marketing, Fashion Marketing or Sports & Entertainment Marketing  
- Students may earn 2 credits with work experience completion  
- Industry certification testing offered; course may be used for SOL verified credit when student passes industry test  
- Acquire knowledge of the marketing functions and supervisory responsibilities for those functions  
- Prepare for supervisory employment and advancement to other management positions  
- Develop advanced marketing competencies in professional selling, planning, mathematics, purchasing, physical distribution, advertising and visual merchandising  
- Develop economic and social competencies related to the supervision of employees  
- Combine classroom instruction and a minimum of 396 hours of continuous supervised on-the-job training throughout the school year when participating in cooperative education  
- Dual Credit opportunity with TNCC
SPORTS ENTERTAINMENT MARKETING (8175)
Grades 10, 11, and 12
Level 2
• Develop a thorough understanding of fundamental marketing concepts and theories as they relate to the sports, entertainment, and recreation industries
• Investigate the components of branding, sponsorships and endorsements, as well as promotion plans needed for sports, entertainment and recreation events
• The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year (Opportunity to earn 2 credits with work completion)

MARKETING VIRTUAL ENTERPRISE (8132)
Grades 11 & 12
Level 2
Prerequisite: One or more marketing course(s)
• Learn marketing theory and applications that serve as a foundation for future study and/or ownership/management business
• Acquire knowledge of marketing, identified as the “new” business priority by employers
• Participate in creating and running a virtual business

FASHION MARKETING (8140)
Grades 10, 11, & 12
Level 2
• Develop marketing competencies for employment in fashion merchandising
• Develop marketing competencies applied to the apparel and accessories industries
• Develop competencies unique to fashion merchandising

FASHION MARKETING COOPERATIVE EDUCATION (8140)
Grades 11 & 12 only
Level 2
• Students may earn 2 credits with work experience completion
• Industry certification testing offered; course may be used for SOL verified credit when student passes industry test
• Develop marketing competencies for employment in fashion merchandising
• Develop marketing competencies applied to the apparel and accessories industries
• Develop competencies unique to fashion merchandising
• Combine classroom instruction and a minimum of 396 hours of continuous supervised on-the-job training

FASHION ADVANCED COOPERATIVE EDUCATION (8145)
Level 2
Prerequisite: Marketing or Fashion Marketing
• Students may earn 2 credits with work experience completion
• Gain knowledge of the apparel and accessories industry
• Develop skills for supervisory employment in apparel businesses
• Develop advanced skills applied to the apparel and accessories industry in the areas of professional selling, merchandising, marketing research, product/service technologies, marketing mathematics, and supervision
TECHNOLOGY EDUCATION

TECHNOLOGY DRAWING/DESIGN (8435)
Level 2
• Learn the graphic language of business and industry
• Develop precision skills in mechanical drafting
• Develop sketches using different projections
• Learn lettering skills, board skills, and two and three dimensional computer aided design and drafting (CADD)

ENGINEERING DRAWING/DESIGN (8436)
Level 2
Prerequisite: Technical Drawing
• Possible dual enrollment credit
• Continue Technical Drawing skill development
• Create complex mechanical drawing
• Learn 3-dimensional Computer Aided Design & Drafting
• Learn mechanical drafting skills that engineers use to solve design problems
• Gain exposure to solid modeling programs
• Gain exposure to rapid prototyping and 3-D printing processes

ADVANCED ENGINEERING DRAWING/DESIGN (8438)
Level 2
Prerequisite: Technical Drawing/Design AND Engineering Drawing/Design
• Use graphic language for product design and technical illustration
• Learn to use 3-D parametric modeling to create innovative designs
• Increase understanding of drawing techniques learned in the Engineering Drawing and Design course
• Research design-related fields and the role of advanced drawing and design processes in manufacturing industry
• Apply the design process, analyze design solutions, reverse engineer products, create 3-D solid models, construct physical models, rapid prototypes, and create multimedia presentations of finished designs.
• Students must complete a work portfolio based on a graphic project

ARCHITECTURAL DRAWING/DESIGN (8437)
Level 2
Prerequisite: Technical Drawing
• Continue Technical Drawing skill development
• Learn principles of architectural drafting
• Draw site plans, foundations, and house plans
• Draw elevations and sections
• Draw electrical, heating, ventilation and air conditioning (HVAC), plumbing and mechanical plans
• Create models of houses

ADVANCED ARCHITECTURAL DRAWING/DESIGN (8438)
Level 2
Prerequisites: Technical Drawing/Design AND Architectural Drawing Design
• Further develop design skills needed for building design
• Learn to use Architectural CADD software
• Increase understanding of drawing techniques learned in Architectural Drawing and Design
• Research building design-related fields and the role of advanced drawing and design processes in the construction industry
• Apply the design process, analyze design solutions, construct physical models, and create multimedia presentations of finished designs
• Students must complete a work portfolio based on a graphic project
COMMUNICATIONS SYSTEMS (8415)
Level 2
- Learn a variety of communication technologies such as photography, GPS, GIS, and CAD
- Study layout and design, composition, and finishing operations
- Learn basic photographic principles
- Learn to use digital and film cameras to create a variety of photographic images
- Use software to manipulate digital photographs
- Learn basic audio, video, video game design and animation principles
- Learn basic CAD principles

IMAGING TECHNOLOGY (8455)
Level 2
- Learn photography technologies such as camera use and film exposure
- Study layout and design, composition, and finishing operations
- Learn to use film cameras to create a variety of photographic images
- Use software to process digital photographs
- Learn basic photography and film development processes
- Learn photographic history
- Study how photography is used in the workplace

VIDEO AND MEDIA TECHNOLOGY (8497)
PHS only (IDEA Academy)
Level 2
Prerequisite: Communication Systems or Imaging Technology
- Offers students an opportunity to study all aspects of video and media production
- Students will operate studio and editing equipment
- Students will gather news and information from individuals, research, and online resources to plan and write for production
- Students are introduced to analog and digital principles of production

ENGINEERING EXPLORATIONS I (8450)
Level 2
- Explore engineering careers, design processes, history, practices, and concepts
- Use tools and machines for designing and analyzing materials or products
- Apply mathematical and scientific principles to technical problems
- Use a computer to analyze data and mechanical/electrical systems to solve problems
- Write report and create drawings to solve problems

ENGINEERING ANALYSIS AND APPLICATIONS II (8451)
BHS & KHS
Level 2
Prerequisite: Engineering Explorations I
- Second of a 4-course sequence
- Apply the engineering design process to areas of the designed world
- Explore ethics in a technological world
- Examine systems in civil, mechanical, electrical, and chemical engineering
- Participate in STEM-based, hands-on projects
- Communicate information through team-based presentations, proposals, and technical reports

GEOSPATIAL TECHNOLOGIES (8423)
Level 2
Prerequisites: Earth Science and Algebra I
- Learn Geospatial Technologies and Information Technology as it applies to careers in engineering, architecture, and geography
- Use GPS units photography, and geographical information systems (GIS) to create themes and maps
• Graphically represent data to analyze complex environmental, political, and social needs
• Learn about the world of smart maps, satellite imagery, and emerging fields

ENGINEERING STUDIES (8426)
Level 2
Prerequisite: Engineering Explorations, Algebra I
• Work as a member of an engineering team
• Work on hands-on projects to solve engineering problems
• Use 3-D solid modeling programs, graphics, mathematics, and science to solve engineering problems
• Become routinely inquisitive through brainstorming and prototyping
• Practice basic engineering skills and communication of technical information while applying the engineering design process to complete an engineering project

CONSTRUCTION TECHNOLOGY (8431) HHS and KHS only
Level 2
• Learn basic carpentry, electrical, and mechanical skills used in the construction industry
• Learn the safe use of shop tools and equipment
• Learn basic blueprint reading
• Learn various building materials, codes, and standards related to the construction industry
• Design and build wood projects of various sizes and structures
• Learn construction management processes

MATERIALS AND PROCESSES TECHNOLOGY (8433)
Level 2
Recommended: Earth Science and Algebra I
• Learn the science of material design and use in manufacturing
• Study composition, strength, and properties of a variety of materials
• Design and build a product
• Learn how to process plastics, ceramics, woods, metals, and composite materials
• Apply chemistry and scientific concepts

PRODUCTION SYSTEMS (8447)
Level 2
• Produce major project of advanced design
• Learn the safe use of tools and equipment
• Use and maintain hand tools and power equipment
• Design and build products in a manufacturing or automation environment
• Learn additive manufacturing and Lean Processes
• Course may be designed around woods, metal, plastics, or other materials
• Analyze markets, design and develop prototypes, and plan a business venture

PROJECT LEAD THE WAY (PLTW) ENGINEERING PROGRAM
This technical education program offers a rigorous 4-year course of study designed for students desiring a career as an engineer or engineer technician. All courses are offered in the PHS Center for High Tech and HHS (unless otherwise specified)

PLTW - INTRODUCTION TO ENGINEERING DESIGN (8439)
PHS & HHS ONLY
Level: 3-Honors
Recommend passing Algebra I & Geometry
• Possible dual enrollment credit
• A rigorous curriculum for Pre-Engineering students equivalent to college-level coursework
• Explore general engineering careers, history, practices, and concepts
• Use tools and machines for designing and analyzing mechanical parts
• Apply mathematical and scientific principles to technical problems
• Write reports and create drawings to solve problems

PLTW – PRINCIPLES OF ENGINEERING (8441)
PHS & HHS only
Level: 3-Honors
Recommend passing Algebra II
• Possible dual enrollment credit
• A rigorous curriculum for Pre-Engineering students equivalent to college-level coursework
• Explore general engineering careers, history, practices, and concepts
• Use tools and machines for designing and analyzing materials or products
• Apply mathematical and scientific principles to technical problems
• Use a computer to analyze data and mechanical/electrical systems to solve problems
• Write reports and create drawings to solve problems

PLTW – DIGITAL ELECTRONICS (8440)
PHS & HHS only
Level: 3-Honors
Prerequisite: Passing Algebra I
Recommend passing Algebra II
• Possible dual enrollment credit
• A rigorous curriculum for Pre-Engineering students equivalent to college-level coursework
• Explore electronic engineering careers, history, practices, and concepts
• Use tools and machines for designing and analyzing digital circuits
• Apply mathematical and scientific principles to technical problems
• Use a computer to program integrated circuits
• Write reports and create drawings to solve problems

PLTW – COMPUTER INTEGRATED MANUFACTURING (8442)
(Specialization Course – PHS only)
Prerequisite: PLTW Intro to Engineering Design, PLTW Principles of Engineering
Level: 3-Honors
• Possible dual enrollment credit
• A rigorous curriculum for Pre-Engineering students equivalent to college-level coursework
• Explore industrial and mechanical engineering careers, history, practices, and concepts
• Setup and program automated machines used in industry
• Apply mathematical and scientific principles to technical problems
• Write reports and create drawings to solve problems

PLTW – AEROSPACE ENGINEERING (8428)
(Specialization Course HHS only)
Prerequisite: PLTW Intro to Engineering Design, PLTW Principles of Engineering
Level: 3-Honors
• Possible dual enrollment credit
• A rigorous curriculum for Pre-Engineering students equivalent to college-level coursework
• Explore industrial and mechanical engineering careers, history, practices, and concepts
• Learn concepts of aerodynamics, astronautics, space-life sciences, and systems engineering through hands-on engineering problems and projects

PLTW ENGINEERING DESIGN AND DEVELOPMENT (8443)
(Capstone Course HHS & PHS only)
Prerequisite: PLTW Intro to Engineering Design, PLTW Principles of Engineering, PLTW Digital Electronics, and PLTW Aerospace Engineering (HHS) or PLTW Computer Integrated Manufacturing (PHS)
Level: 3-Honors
• Possible dual enrollment credit
• A rigorous curriculum for Pre-Engineering students equivalent to college-level coursework
• Explore industrial and mechanical engineering careers, history, practices, and concepts
• Use the Engineering Design Process with the knowledge and skills from previous PLTW courses
• Apply mathematical and scientific principles to technical problems
• Write reports and create drawings to solve problems

TRADE & INDUSTRIAL EDUCATION

ROBOTICS I (8557)
(Phoebus High School only)
Prerequisite: Algebra I
Level: 3-Honors
• Learn to use and analyze mechanisms, electric circuits, and systems
• Develop skills in applied physics, design, and problem solving
• Develop programming skills to move robots to accomplish a task

ROBOTICS AND MECHATRONICS (8558)
(Phoebus High School only)
Level 3
Prerequisite: Robotics I, Geometry, Recommend Algebra II
• Further develop skills in electronics, engineering, electro-pneumatics, and automation
• Develop design and engineering skills
• Develop programming skills to run manufacturing operation
• Learn about industrial controllers (PLCs) for automation processes and ladder logic
• Design and build FIRST Robotics and competition-ready robot
• Prepare for and compete in Skills USA Robotics and Mechatronics events

HEALTH AND MEDICAL SCIENCES

PRINCIPLES OF BIOMEDICAL SCIENCES PLTW (8379)
Level 3
Bethel High School Governor’s Health Science Academy Only
• Students are taught concepts of forensic inquiry, DNA and inheritance
• Students learn the function of human body systems, exploring the body through diseases, such as those leading to diabetes and heart, sickle cell, and infectious diseases
• Students also explore medical interventions, postmortem examination, bioprocessing, bioinformatics, and concepts of microbiology and genetic engineering

HUMAN BODY SYSTEMS PLTW (8380)
Bethel High School Governor’s Health Science Academy Only
Level 3
Prerequisite: Principles of Biomedical Sciences
• Students explore the human body systems of communication, power, and movement
• Students are taught the body’s components, tissues, molecules and cells
• Students learn the concepts of homeostasis and body system defenses

MEDICAL INTERVENTIONS PLTW (8381)
Bethel High School Governor’s Health Science Academy Only
Level 2
Prerequisite: Human Body Systems
• Students are taught concepts in fighting infections and understanding genetics
• Students learn steps involved in preventing, detecting, and treating cancer and organ failure.

INTRODUCTION TO HEALTH AND MEDICAL SCIENCES (8302)
Level 2
Bethel High School Governor’s Health Science Academy Only
• Students are introduced to a variety of healthcare careers and develops basic skills required in all health and medical science
• Students understand the key elements of the U.S. healthcare system and to learn basic healthcare terminology, anatomy and physiology for each body system, pathologies, diagnostic and clinical procedures, therapeutic interventions, and the fundamentals of traumatic and medical emergency care
• Instruction emphasizes safety, cleanliness, asepsis, professionalism, accountability, and efficiency within the healthcare environment
• Students also begin gaining job-seeking skills for entry into the health and medical sciences field
• Instruction may include the basics of medical laboratory procedures, pharmacology fundamentals, biotechnology concepts, and communication skills essential for providing quality patient care.

MEDICAL TERMINOLOGY (8383)
Bethel High School Governor’s Health Science Academy Only
Level 2
Prerequisite: Introduction to Health and Medical Sciences
• Students learn common medical terms essential for safe patient care
• Topics are presented in logical order, beginning with each body system's anatomy and physiology and progressing through pathology, laboratory tests and clinical procedures, therapeutic interventions, and pharmacology
• Students learn concepts, terms, and abbreviations for each topic

LAW AND PUBLIC SAFETY

CRIMINAL JUSTICE I (8702)
Level 2
Law and Public Safety Academy Only
Grades: 10-12
• Students are introduced to the legal foundations and processes, and the principles and techniques of the criminal justice system
• Students explore careers within the criminal justice system
• Students explore crime scene investigation, the court system, the rule of law, policing, and juvenile justice
• Course topics include criminal investigation, emergency response, search and seizure, arrest procedures, patrol operations, court procedure, juvenile justice, criminal law, AED/CPR and First Aid

BUSINESS LAW (6131)
Level 2
Grades: 10-12
• Students examine the foundations of the American legal system and learn the rights and responsibilities of citizen
TRANSITION PLAN
CAREER COURSES

EDUCATION FOR EMPLOYMENT, INTRODUCTION (9083)
Level 2
- Investigate various occupational fields
- Develop employability skills
- Practice solving real-world problems

EDUCATION FOR EMPLOYMENT II (9087)
Level 2
Prerequisite: EFE I
- Experience a motivational program to help achieve a higher level of success
- Develop skills to get a job and be successful on the job
- Participate in a paid-work experience
- Become familiar with educational and career options

OFFICE SPECIALIST I (6740)
Level 2
- Develop keyboarding and computer skills
- Develop business communications skills
- Learn to use telecommunication equipment
- Explore business careers
- Develop a resume and demonstrate job interview skills

OFFICE SPECIALIST II (6741)
Level 2
Prerequisite: Office Specialist I
- Improve keyboarding and computer skills
- Learn to process numeric data and properly use a calculator
- Learn to maintain financial records
- Learn to make photocopies and maintain the photo copier
- Learn to file and manage records
- Enhance communication skills and use electronic communication equipment
- Prepare for employment by making a resume and job application

OFFICE SPECIALIST III (6742)
Level 2
Prerequisite: Office Specialist II
- Produce complex business documents
- Learn to maintain an appointment calendar and greet visitors
- Manage data files and financial records
- Develop more photocopying skills
- Learn search skills on the Internet
- Enhance math skills
- Prepare further for employment by developing an employment portfolio
The Academies of Hampton… Your Pathway to Success

The Academies of Hampton create purposeful learning experiences that allow students to connect career aspirations to their learning environments. This school within a school model allows students to explore a variety of possible career opportunities, engage in unique learning experiences, and expand traditional learning requirements with a career lens, all while creating a system of support to guide students to success.

**Freshman Academy**

Ninth-grade students begin their educational experience in a freshman academy to promote an effective and positive transition from middle school to high school. This academy is designed to help students to adjust to high school expectations, routines, and standards in a supportive, nurturing environment. The ninth-grade instructional program also includes Success 101, a Freshman Seminar course designed to equip students with the study and social skills they will need to succeed in high school, and to motivate them through exploration of their individual talents and college- and career-awareness activities.

**Career Academies**

Tenth through twelfth grade students participate in academies organized around themes that support high-demand, high-skill careers in the Hampton Roads region. These academies are designed to ensure students graduate college and career-ready. The Academies of Hampton create engaging, hands-on learning opportunities through small learning communities that connect students with local businesses, post-secondary institutions and community organizations. Academy students graduate with a plan for a successful future and network of support to guide them along their way!

**2017 – 2018 Career Academies**

Aerospace and Information Technology Academy  
Architecture and Applied Arts Governor’s STEM Academy  
Governor’s Health Sciences Academy  
IDEA Academy  
Law and Public Safety Academy

**Transforming Teaching & Learning**

Creating meaningful learning experiences that enable students to learn and apply academic, 21st century, and technical knowledge and skills to real-world challenges and that equip them for success in college and careers.

**Transforming the Secondary School Experience**

Creating and maintaining the career and interest-themed academies and the collaborative culture, structures and practices necessary to transform teaching and learning and to capitalize on community engagement.

**Transforming Business & Civic Engagement**

Engaging employers, educators, and community leaders in building and sustaining transformed secondary schools that promote community growth and prosperity by preparing students for future work and citizenship.
Hampton City Schools

Freshman Academy
YOUR PATHWAY TO SUCCESS

WELCOME CLASS OF 2021 TO FRESHMAN ACADEMY!

Freshman Academy is just for you!

Freshman Academy provides the opportunity to explore your strengths, interests, and possible academic and career pathways.

As a 9th grade student, you will begin your educational experience in a Freshman Academy to promote an effective and positive transition from middle school to high school. This academy is designed to help you adjust to high school expectations, routines, and standards in a supportive, nurturing environment.

You will be a member of a team with dedicated core teachers, Success 101 teacher, a school counselor, and an administrator. During your 9th grade experience, you will engage in team-based activities, develop your leadership skills, identify and grow your strengths, and discover new interests.

Your Freshman Academy allows you to take ownership of your future. This experience will not only help you to make an informed decision as to which of the College and Career Academies you will enroll in your sophomore year, but what career journey you would like to embark on after high school.

Freshman Academy puts you on your unique pathway toward success, while surrounding you with a network of support along the way.

www.hampton.k12.va.us/schools/academies

Summer Bridge – Aug. 14-17, 2017
Freshmen participate in peer-to-peer engagement activities with student leaders, a school tour, college and career presentations, workshops that introduce extra-curricular, co-curricular, sports and other school sponsored activities.

Freshman Orientation – Aug. 31, 2017
It is time to get excited... You are a freshman, and on your way toward a successful future! Join your peers and teachers to welcome in the new school year!

Success 101 – connects academies with real-world applications through field trips, guest speakers, and career events! Students will create a meaningful 10-year career and life plan that will guide you through “your pathway to success!”
The Aerospace and Information Technology Academy – Academy programs provide the academic and technical courses needed for successful transition to postsecondary education and careers in business information management, aerospace, engineering design and solutions, information technology and services, and interactive media. Upon high school graduation, students will have high-tech engineering and literacy and other critical knowledge, skills, and credentials that will prepare them for high-demand careers in aerospace and engineering.


Academy Pathways

Aerospace Pathway - Project Lead The Way: Students explore the evolution of flight, navigational control, and flight fundamentals; investigate aerospace materials, propulsion, space travel, and orbital mechanics.

Courses include: Introduction to Engineering Design PLTW (8439), Principles of Engineering PLTW (8441), Digital Electronics PLTW (8440), Aerospace Engineering (8428), Senior Capstone Course: Engineering Design and Development (8443), as well as other electives

Examples of Career Pathways: airline pilots, copilots, flight engineers, air traffic controllers, transportation and distribution managers, cargo and freight agents, aircraft mechanics, aircraft service technicians, dispatchers, logisticians, supervisors of transportation operators, mobile heavy equipment mechanics, military enlisted personnel, and military officers

Information Technology Pathway: Students develop computer programs, applications, and create web experiences.


Examples of Career Pathways: software application developers, systems software developers, computer systems analysts, network and computer systems administrators, computer support specialists, computer programmers, database administrators, technical writers, computer and information research scientists, computer hardware engineers, multimedia artists and animators

Business Information Management Pathway: Students learn the language of business and how to run a successful business or enterprise.

Courses include: Accounting (6320), Accounting Advanced (6321), Information Technology Fundamentals (6670), Computer Information Systems (6612), Design, Multimedia, and Web Technologies (6630), Design, Multimedia, and Web Technologies Advanced (6631), Programming (6640), Business Virtual Enterprise (6135), as well as other electives

Examples of Career Pathways: management analysts, office clerks, general and operations managers,
customer service representatives, bookkeeping clerks, administrative assistants, executive assistants, shipping/receiving and traffic clerks, training and development specialists, training and development managers, operations research analysts, administrative services managers, human resources assistants, human resource managers, payroll and timekeeping clerks, file clerks, compensation and job analysis specialists, and procurement clerks

Architecture & Applied Arts Governor’s STEM Academy
Located at Kecoughtan High School

Architecture & Applied Arts Governor’s STEM Academy - Academy programs provide academic and technical courses needed for successful transition to postsecondary education and careers in architecture, art, engineering, engineering technology, graphic arts, and marketing. Upon high school graduation, students will have STEM-related literacy and other critical knowledge, skills, and credentials that will prepare them for high-demand in architecture and applied arts.

Academy Partners: ECPI University, Hampton University, JCPenney, Peninsula Council for Workforce Development, Peninsula Housing and Building Association, NASA Langley Research Center, New Horizons Regional Education Center, Newport News Shipbuilding, Q-Design, Signature Canvas, Thomas Nelson Community College, and Walsh Electric

Academy Pathways

Architecture Pathway: Students learn the principles of architectural drafting, design, and creation. Courses include: Construction Technology (8431), Architectural Drawing and Design (8437), Production Systems (8447), Materials and Processes (8433), Engineering Drawing (8436), Art History (9170), as well as other electives

Examples of Career Pathways: architects, architectural designers, building code inspectors/officials, building designers, civil engineers, cost estimators, drafters, environmental designers, environmental engineer/technicians, fire prevention/protection engineers, interior designers, landscape architects, materials engineers, urban planner/designers, safety directors, specification writers, structural engineers, surveying/mapping technicians, and surveyors

Architectural Engineering Pathway: Students learn the concepts and principles of Architectural Engineering through a series of science, technology, engineering, and mathematics (STEM) based courses. Courses include: Technical Drawing/Design (8435), Engineering Drawing/Design (8436), Engineering Explorations (8450), Construction Technology (8431), Advanced Engineering Drawing/Design (8438), and Production Systems (8447), as well as other electives

Examples of Career Pathways: application engineers, architectural engineers, civil engineers, construction engineers, industrial engineers, CAD technicians, drafters, manufacturing engineer technicians, mechanical engineer technicians, mechanical engineers, survey technicians, systems engineer technicians, systems engineers, transportation engineer technicians and transportation engineers

Applied Arts - Graphic Design Pathway: Students learn how technology and traditional art forms can work together to create visually appealing and commercially effective pieces. They use a variety of graphic techniques
and tools to develop promotional, marketing and packaging.

**Courses include:** Art Foundations: Cultural Art Forms (9160), Art Foundations: 2-D Design (9120), Art Foundations: 3-D Design (9120), Computer Graphic Design (9181), Introduction to Marketing (8110), Sports and Entertainment Marketing (8175), 3D Computer Animation I (3180), Advanced Marketing (8130), as well as other electives

**Examples of Career Pathways:** advertisers, animators, cartoonists, designers, educators, fashion illustrators, interior designers, performance artists, photographers, and web designers

**Applied Arts** – Fashion Design Pathway: Students learn the apparel and accessories industry through designing, constructing, and merchandising their own pieces. Students develop technical proficiencies of pattern-making, tailoring, industrial sewing, marketing, and other related skills.

**Courses Include:** Introduction To Marketing (8110), Fashion Careers I (8280), Fashion Marketing (8140), Advanced Fashion Marketing (8145), Fashion Careers II (8281), as well as other electives

**Examples of Career Pathways:** administrative support representatives, customer services representatives, department managers, merchandise buyers, merchandise managers, operations managers, retail marketing managers, sales associates, stock clerks, store managers, and visual merchandise managers

**Governor’s Health Science Academy**

Located at Bethel High School

**Governor’s Health Sciences Academy** - Academy programs provide academic and technical courses needed for successful transition to postsecondary education and careers in dentistry, medicine, nursing, biomedical technicians, and emergency medical technicians. Upon high school graduation, students will have health science literacy and other critical knowledge, skills, and credentials that will prepare them for high-demand careers in health sciences.

**Academy Partners:** Hampton University, Riverside College of Health Careers, Sentara Healthcare, Thomas Nelson Community College, and ECPI University

**Academy Pathways**

**Diagnostic Services Pathway:** Students learn to use tests and evaluations to aid in the detection, diagnosis and treatment of diseases, injuries or other physical conditions.

Courses include: Introduction to Health and Medical Sciences (8302), Medical Terminology (8383), Human Body Systems (8380), as well as other electives

Examples of Career Pathways: lab technicians, data entry clerks, quality assurance/quality control technicians, biochemists, microbiologists, research assistants and research scientists

**Therapeutic Services Pathway:** Students learn to care and treat patients to improve their health by counseling patients and providing them the tools needed to live a healthier and problem-free lifestyle.

Courses include: Introduction to Health and Medical Sciences (8302), Medical Terminology (8383), as well as other electives

Examples of Career Pathways: anesthesiologist assistants, athletic trainers, audiologists, certified nursing assistants, chiropractors, dental lab technicians, dentists, dieticians, emergency medical technicians,
paramedics, home health aides, medical assistants, nurse practitioners, social workers, pharmacists, pharmacy technicians, physicians, psychologists, and veterinarians

Biotechnology Research and Development Pathway: Students learn about the discovery of new treatments and medical technologies to improve human health and advance the overall health science field.

Courses include: Medical Terminology (8383), Principles of Biomedical Sciences PLTW (8379), Human Body Systems PLTW (8380), Medical Intervention PLTW (8381), as well as other electives

Examples of Career Pathways: biomedical/clinical technicians, laboratory technicians, quality assurance/quality control technicians, nuclear medicine technologists, cell biology research assistants, research scientists, and biochemists

Support Service Pathway: Students learn to assist health care professionals with a range of administrative and maintenance duties to ensure that the health care environment is maintained.

Courses include: Introduction to Health and Medical Sciences (8302), Medical Terminology (8383), Computer Information Systems (6612), Computer Information Systems - Advanced (6613), Accounting (6320), Accounting - Advanced (6321), as well as other electives

Examples of Career Pathways: central service managers, facilities managers, materials managers, medical records managers, insurance billing assistants, insurance billing managers, ward secretaries, environmental services technicians, environmental services managers and quality assurance/quality control technicians

Health Informatics Pathway: Students learn to manage health care agencies by overseeing patient data, financial information, and technological applications to health care processes and procedures.

Courses include: Introduction to Health and Medical Sciences (8302), Medical Terminology (8383), Computer Information Systems (6612), Programming (6640), Information Technology Fundamentals (6670), Computer Information Systems, Advanced (6613), as well as other electives

Examples of Career Pathways: admitting clerks, health educators, health care administrators, medical assistants, medical billers, patient financial services administrators, risk managers, and medical information technologists

Information Design & Engineering Academy (IDEA) STEM Academy
Located at Phoebus High School

Information Design and Engineering Academy (IDEA) STEM Academy - Academy programs provide academic and technical courses needed for successful transition to postsecondary education and careers in engineering, engineer technologist, or engineering technician, programming and information technology, electronic media, and graphics design. Upon high school graduation, students will have high-tech engineering and manufacturing literacy and other critical knowledge, skills, and credentials that will prepare them for high-demand careers in information design and engineering.

Academy Partners: ECPI University, Hampton University, Peninsula Council for Workforce Development, National Institute of Aerospace, New Horizons Regional Education Center, and Newport News Shipbuilding Academy Pathways
Engineering and Technology Pathway – Project Lead The Way: Students learn the Engineering Design Process and how technology is created. Students develop and design new products using industry-recognized design software, rapid prototyping, mechatronics, and robotics.

Courses include: Introduction to Engineering Design PLTW (8439), Principles of Engineering PLTW (8441), Digital Electronics PLTW (8440), Computer Integrated Manufacturing PLTW (8842), Engineering Design and Development PLTW (8843), Engineering Drawing/Design (8436), Technology Drawing/Design (8435), Robotics I (8557), Robotics and Mechatronics (8558), as well as other electives

Examples of Career Pathways: aeronautical/aerospace engineers, application engineers, architectural engineers, automotive engineers, CAD technicians, computer/hardware engineers, drafters, electrical/electronic engineering technicians, geothermal engineers, industrial engineer technicians, industrial engineers, manufacturing engineer technicians, manufacturing engineers, marine engineers, metallurgists, product/process engineers, survey technicians, surveyors, systems engineers, and transportation engineers

Information Technology and Design (Support and Services) Pathway: Students learn to create a story line for a video game, how to create web page, basic animation techniques, and how a computer works.

Courses include: IT Fundamentals (6670), Programming (6640), Design, Multimedia, and Web Technologies (6630), Computer Network Software Operations (6650), Computer Network Software Operations – Advanced (6651), Advanced Programming (6641), as well as other electives

Examples of Career Pathways: account managers, applications integrators, call center support representatives, data systems designers, database analysts, e-business specialists, help desk specialists, information systems architects, instructional designers, maintenance technicians, computer support specialists, computer systems coordinators, project support engineers, systems analysts, technical communicators, and testing engineers

Media and Technology & Design (Audio/Video Technology and Film) Pathway: Students learn design basics in photography, Photoshop, and video editing using industry-standard video and audio editing programs. Students learn basic writing, directing, acting, and editing of high definition camera work to create professional videos.

Courses include: Communications Systems (8415), Imaging Technology (8455), Video and Media Technology (8497), 3D Computer Animation Level I (3180), 3D Computer Animation Level II (3181), as well as other electives

Examples of Career Pathways: audio system technicians, audio-video designers, audio-video engineers, audio-video system service technicians, technical computer support technicians, videographers, special effects animators, visual effects artists, video systems technicians, animators, and film editors

Law and Public Safety Academy

Location To Be Determined

The Law and Public Safety Academy – Academy programs provide academic and technical courses needed for successful transition to postsecondary education and careers in professions that ensure the safety, security, and wellness of the community. Upon high school graduation, students will have law and public safety literacy and other critical knowledge, skills, and credentials that will prepare them for high-demand careers in law and public safety.
Academy Partners: City of Hampton, Hampton Fire Department, and Hampton Police Department

Academy Pathways

Law Enforcement Pathway: Students are introduced to the legal foundations and processes of, while exploring the career related to, the criminal justice system.

Courses include: Criminal Justice I (8702), Criminal Justice II (8703), Forensic Technology (8409), Business Law (6131), Public Safety I (8700), Public Safety II (8701), as well as other electives

Examples of Career Pathways: fire investigators, hazardous materials removal workers, forensic science technicians, police officers, corrections officers, probation officers, parole officers, dispatchers, emergency medical technicians, paramedics, firefighters, customs inspectors, private detectives, U.S. marshals, security officers, arbitrators, attorneys, court reporters, and paralegals

Security and Protective Services Pathway: Students learn legal procedures of the criminal justice system, U.S. citizenship rights and responsibilities, as well as leadership and military foundations.

Courses include: Military Science I (7913), Military Science II (7916), Military Science III (7918), Military Science IV (7920), Criminal Justice I (8702), Criminal Justice II (8703), Public Safety I (8700), as well as other electives

Examples of Career Pathways: fire investigators, hazardous materials removal workers, forensic science technicians, police officers, corrections officers, probation officers, dispatchers, parole officers, dispatchers, emergency medical technicians, paramedics, combat specialty officers, military enlisted personnel, military intelligence specialists, military officers, special forces personnel, firefighters, customs inspectors, and private detectives
GED PROGRAMS FOR HIGH SCHOOL STUDENTS

While Hampton City Schools (HCS) would like to see all students graduate with a standard diploma, we realize that some 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. Many think about dropping out, however, HCS 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 GED (General Educational Development) test. The test 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 and it is available to Hampton City Schools students through two unique programs. For more information, ask your school counselor or contact the program coordinators at 727-1327.

This program is designed for highly motivated students with strong skills in reading and mathematics as well as core knowledge in the basic subject areas. Students must make certain minimum entry test scores to be eligible to participate. These regulations come from the Department of Education and are referred to as ISAEP (Individual Student Alternative Education Plan) regulations. Students normally receive the GED credential within one school year.

Students attend classes 15 hours weekly at the Adult Education Center located on Thomas Street. Classes are scheduled to meet students’ needs 3 days per week, mornings or afternoons. Students are expected to be employed or eligible for employment.

Before taking the GED test, students must have completed a vocational program component, which includes an employment experience (paid or volunteer).

Students who wish to enter the program must take three entry tests, the Test of Adult Basic Education (TABE), the GED Official Practice Test, and the Career Scope vocational assessment. To begin the process, students fill out the GED referral form with their guidance counselor and it is sent to Adult Education for processing. After taking initial assessments, students and parents meet with the ISAEP coordinator to go over results and make a joint decision about entry to the program.

There is a vocational education component required to complete the program. Students must master workplace essential skills and have at least 40 hours of documented real world work experience – either volunteer or paid employment.
THE GOVERNOR’S SCHOOL

for

SCIENCE AND TECHNOLOGY

Course Descriptions for the 2017-2018 School Year

Advanced Chemical Analysis (4471): (2 weighted high school science credits) 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.

Advanced Biological Analysis (4371): (2 weighted high school science credits) 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 study 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 and 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. Prerequisite Advanced Chemical Analysis.

Calculus-based Engineering Physics I & II: Mechanics to ElectroMagnetism (4571): (2 weighted high school science credits) This is a mathematical 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, 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. Co-requisite: Enrollment in GSST College Calculus Course.

Calculus-based Engineering Physics III and IV: Modern Physics and Applied Physics: Engineering Design Principles (4580): (2 weighted high school science credits) 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. Prerequisites: Engineering Physics I & II, Calculus.
Computational Science: 4520: (2 weighted high school science credits) 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 & nonconservative 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.

Prerequisites Algebra II/Trig.

Engineering Design Innovation & Entrepreneurship (03201): (2 weighted high school science credits) 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. Prerequisites: Computational Science and Pre-Calculus.

College Modern Pre-calculus (3162): (1 weighted high school math credit) This course is a comprehensive conceptual and practical 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 random variables, sampling, distribution families, binomial and Poisson probabilities, conditional probability, estimations, data analysis, contingency tables, frequentist and Bayesian perspectives, simple and multiple regression analysis including linear, power, and exponential fit, confidence intervals, hypothesis testing for means and proportions, Chi-square, ANOVA, and several non-parametric testing, and design of experiments.

Successful completion of this course will prepare students to enroll in multivariable calculus / linear algebra.

Statistical Research Methods (3190): (1 weighted high school math credit) This course is a comprehensive conceptual and practical presentation of probability, descriptive/inferential statistics, and the key ideas underlying statistical and quantitative reasoning. Statistical methods of organizing, summarizing, and displaying data combined with statistical testing are used to solve problems from a myriad of areas such as business, engineering, biology, and medicine. Advantages and limitations of statistical methods are developed. Graphing calculators and Minitab statistical software are extensively utilized. The emphasis is on the interpretation of the statistical results rather than the mere computation. Topics include random variables, sampling, distribution families, binomial and Poisson probabilities, conditional probability, estimations, data analysis, contingency tables, frequentist and Bayesian perspectives, simple and multiple regression analysis including linear, power, and exponential fit, confidence intervals, hypothesis testing for means and proportions, Chi-square, ANOVA, and several non-parametric testing, and design of experiments.

Multivariable Calculus/Linear Algebra (3178): (1 weighted high school math credit) 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
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 of 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. Prerequisite for Multivariable Calculus is 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.

Differential Equations and Math Methods in Physics (02123): (1 weighted high school math credit) The first semester the emphasis will be on Ordinary Differential Equations (ODE). Partial Differential Equations (PDE) at the end of the first semester and conclude the second semester by looking at modeling the four fundamental forces and other applied topics. The construction of mathematical models to address real-world problems has been one of the most important aspects of each of the branches of science. It is often the case that these mathematical models are formulated in terms of equations involving functions as well as their derivatives. Such equations are called differential equations. These differential equations are the language in which the laws of nature can be expressed. Understanding the properties of solutions of differential equations is fundamental too much of contemporary science and engineering. If only one independent variable is involved, often time, the equations are called ordinary differential equations. The course will demonstrate the usefulness of ordinary differential equations for modeling physical and other phenomena. Complementary mathematical approaches for their solution will be presented, including analytical methods, graphical analysis and numerical techniques. This course also covers the classical partial differential equations of applied mathematics, physics, and engineering: diffusion, Laplace/Poisson, and wave equations. It also includes methods and tools for solving these PDEs, such as separation of variables, Fourier, Laplace, Legendre, Bessel series and transforms, eigenvalue problems, and Green's functions. Emphasis during the second semester will be placed on building and modeling the fundamental forces of nature. Prerequisite for Differential Equations is successful completion of Multivariable Calculus/Linear Algebra and permission of the instructor.

Research Methodology & Ethics (4610): (1 weighted high school science credit). Students will study contemporary issues in scientific research while conducting independent research projects outside of class. Students are encouraged to select projects consistent with their strand or career goals. Course topics include research design strategies, data analysis and representation (with and without computer-assistance), norms of conduct for ethical research behavior, and the historical basis for current research regulations, among others. All students must conduct a review of the primary literature to support their research design assumptions, prepare and present a plan of their proposed research for institutional review and approval, conduct their studies and report their findings via formal technical paper as well as oral presentation. All students present posters in our junior science symposium, judged by professionals in various fields. All students complete application materials for the Tidewater Science and Engineering Fair, and participation in this, and other fairs, is highly encouraged. This course will serve as a preparatory course for the Honor Research and Mentorship Program.

Environmental Science: Research Applications / Mentorship (4271 / 4612): (2 weighted high school science credits). In the fall semester, students integrate aspects of biology, chemistry, earth science, and physics in the study of the environment. Exploration of relationships between organisms and their biotic and abiotic environment at multiple levels of biological system hierarchy serves as the foundation for this course. Laboratory and fieldwork are integral components of the course. Students undertake field sampling for water quality and biotic components. While analyzing their own data, students will become familiar with concepts such as spatial and temporal variation in natural systems, species diversity, and community similarity indices. Critical thinking, risk analysis, and cost-benefit analysis will be emphasized as students identify and analyze alternative solutions to complex environmental problems. Current or on-going environmental issues and/or case histories will be emphasized. Spring semester will emphasize ecological principals from physiological ecology to ecosystem ecology. Mentorship involves students in concentrated research or project development in firms and laboratories throughout the Tidewater area. 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 Minitab statistical software for presentation and analysis of data. This course provides students with an opportunity to integrate theory, knowledge and application through a research experience.
Program Model for GSST, 2017-2018 SY

(College Credit Subject to Review)

Revised 11.01.16

Engineering Strand (Prerequisites: 2 of the following sciences: Biology, Chemistry and/or Physics, with a math minimum of Pre-Calculus.)

<table>
<thead>
<tr>
<th>11th grade year</th>
<th>12th grade year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calculus-based Engineering Physics I &amp; II:</strong> 2 HS/STNCC credits</td>
<td><strong>Calculus-based Engineering Physics III &amp; IV: Engineering Design</strong> 2 HS / 2 TNCC credits *pending approval</td>
</tr>
<tr>
<td><strong>Research Methodology &amp; Ethics</strong> 1 HS / 3 TNCC credits *pending approval</td>
<td><strong>Env Sci / HR/M.</strong> 2 HS credits for Env Sci / HR / M</td>
</tr>
<tr>
<td><strong>Calculus</strong> 1 HS/8 TNCC credits</td>
<td><strong>Multivariable (MV) - Linear Algebra (LA) / Statistics</strong> 1 HS/7 TNCC credits for MV-LA 1 HS/3 TNCC credits for Statistics</td>
</tr>
</tbody>
</table>

4 HS/16 college credits

5 HS/9-13 college credits

Total: 9 HS/25-29 college credits

*Biological Science Strand (Prerequisites: Biology and Chemistry, with a math minimum of Algebra II/Trig.)*

<table>
<thead>
<tr>
<th>11th grade year</th>
<th>12th grade year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advanced Chemical Analysis</strong></td>
<td><strong>Advanced Biological Analysis</strong></td>
</tr>
<tr>
<td>2 HS/8 TNCC credits</td>
<td>2 HS/8 TNCC credits</td>
</tr>
<tr>
<td><strong>Research Methodology &amp; Ethics</strong> 1 HS / 3 TNCC credits *pending approval</td>
<td><strong>Env Sci / HR/M.</strong> 2 HS credits for Env Sci / HR / M</td>
</tr>
<tr>
<td><strong>Modern Pre-Calculus / Calculus</strong> 1 HS/6 TNCC credits for Pre-Calculus 1 HS/8 TNCC credits for Calculus</td>
<td><strong>Calculus / MV-LA / Statistics</strong> 1 HS/7 TNCC credits for Calculus 1 HS/3 TNCC credits for Statistics</td>
</tr>
</tbody>
</table>

4 HS/14-16 college credits

5 HS/17-22 college credits

Total: 9 HS/31-38 college credits

Computational Science & Engineering (Prerequisites: 2 of the following sciences: Biology, Chemistry and/or Physics, with a math minimum of Algebra II/Trig.)

<table>
<thead>
<tr>
<th>11th grade year</th>
<th>12th grade year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Computational Science</strong></td>
<td><strong>Engineering Design Innovation &amp; Entrepreneurship</strong></td>
</tr>
<tr>
<td>2 HS credits / 4 TNCC credits</td>
<td>2 HS/STNCC credits *pending approval</td>
</tr>
<tr>
<td><strong>Research Methodology &amp; Ethics</strong> 1 HS / 3 TNCC credits *pending approval</td>
<td><strong>Env Sci / HR/M.</strong> 2 HS credits for Env Sci / HR / M</td>
</tr>
<tr>
<td><strong>Modern Pre-Calculus / Calculus</strong> 1 HS/6 TNCC credits for Pre-Calculus 1 HS/8 TNCC credits for Calculus</td>
<td><strong>Calculus / MV-LA / Statistics</strong> 1 HS/7 TNCC credits for Calculus 1 HS/3 TNCC credits for Statistics</td>
</tr>
</tbody>
</table>

4 HS/13-16 college credits

5 HS/20-25 college credits

Total: 9 HS/33-41 college credits

*Biological Science - It is recommended that students take high school Physics at their home school division.*
# New Horizons Career and Technical Education
## Program of Studies SY 2017-2018

<table>
<thead>
<tr>
<th>CAREER CLUSTERS</th>
<th>COURSES</th>
<th>CAMPUS* (Woodside Lane/Butler Farm)</th>
<th>AM/PM SESSION</th>
<th>COLLEGE CREDENTIAL(S)</th>
<th>INDUSTRY CREDENTIAL(S)</th>
<th>Course Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Automotive Technology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1 yr program)</td>
<td>Collision and Refinishing I, II</td>
<td>Butler Farm</td>
<td>Both</td>
<td></td>
<td>NOCTI</td>
<td>8676/8677</td>
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<tr>
<td>(2 yr optional)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ASET</td>
<td>8678</td>
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<tr>
<td>(2 yr program)</td>
<td>Automotive Technology I, II</td>
<td>Butler Farm</td>
<td>Both 17 TNCC</td>
<td></td>
<td>ASE/AYES</td>
<td>8506/8507</td>
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<tr>
<td><strong>Construction Technology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1 yr program)</td>
<td>Construction I, II</td>
<td>Woodside Lane</td>
<td>Both</td>
<td></td>
<td>NOCTI</td>
<td>8605/8602</td>
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<tr>
<td>(2 yr optional)</td>
<td></td>
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<td></td>
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<td></td>
<td>8603</td>
</tr>
<tr>
<td>(1 yr program)</td>
<td>Electricity and Renewable Energy</td>
<td>Woodside Lane</td>
<td>Both</td>
<td></td>
<td>NOCTI</td>
<td>8533/8534</td>
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<tr>
<td>(1 yr program)</td>
<td>HVAC I, II</td>
<td>Butler Farm</td>
<td>Both 9 TNCC</td>
<td></td>
<td>EPA Technician</td>
<td>8503/8504</td>
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<tr>
<td><strong>Engineering/Manufacturing Technology</strong></td>
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<tr>
<td>(1 yr program)</td>
<td>Electronics/Industrial Robotics Technology</td>
<td>Butler Farm</td>
<td>Both</td>
<td></td>
<td>NOCTI</td>
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<tr>
<td>Advance Industrial Robotics Technology</td>
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<td></td>
<td></td>
<td>8558</td>
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<tr>
<td>(1 yr program)</td>
<td>Mechatronics (Mechanical and Electronics Technician)</td>
<td>Butler Farm</td>
<td>AM only 22 TNCC</td>
<td></td>
<td>Siemens Mechatronics Systems Certification</td>
<td>8554/8555/8556</td>
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<td>(2 yr program)</td>
<td>Welding I, II</td>
<td>Butler Farm - I &amp; II</td>
<td>Both</td>
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<td>AWS SENSE/NOCTI</td>
<td>8672/8673</td>
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<tr>
<td><strong>Health Sciences</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2 yr program)</td>
<td>Dental Assistant I, II</td>
<td>Butler Farm</td>
<td>I-AM, I&amp;II-PM</td>
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<td>X-Ray Cert., NOCTI</td>
<td>8326/8329</td>
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<tr>
<td>(1 yr program)</td>
<td>Medical Assistant</td>
<td>Butler Farm</td>
<td>Both</td>
<td></td>
<td>NOCTI/ NHA Certification</td>
<td>8345/8346</td>
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<td>(1 yr program)</td>
<td>Nursing Assistant</td>
<td>Butler Farm</td>
<td>Both</td>
<td></td>
<td>Cert. Nursing Assistant</td>
<td>8360/8362</td>
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<td>(1 yr program)</td>
<td>Pharmacy Technician</td>
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<td>Both</td>
<td></td>
<td>Va. Pharmacy Tech Exam</td>
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<td>(1 yr program)</td>
<td>Veterinary Science</td>
<td>Woodside Lane</td>
<td>Both</td>
<td></td>
<td>NOCTI</td>
<td>8063/8068</td>
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<tr>
<td><strong>Human Services</strong></td>
<td></td>
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<td></td>
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<tr>
<td>2017-18 only</td>
<td>Barbering II</td>
<td>Woodside Lane</td>
<td>AM only</td>
<td>State Licensure/NOCTI</td>
<td>8740/8741</td>
<td></td>
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<tr>
<td>(2 yr program)</td>
<td>Cosmetology I, II</td>
<td>Both</td>
<td></td>
<td>State Licensure/NOCTI</td>
<td>8527/8528</td>
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<td>(2 yr program)</td>
<td>Culinary Arts I &amp; II</td>
<td>Woodside Lane</td>
<td>Both 1 TNCC</td>
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<td>NOCTI</td>
<td>8275/8276</td>
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<tr>
<td>(1 yr program)</td>
<td>Early Childhood Education</td>
<td>Butler Farm</td>
<td>Both 6 TNCC</td>
<td></td>
<td>NOCTI</td>
<td>8234/8285</td>
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<tr>
<td>2017-18 only</td>
<td>Early Childhood Education II</td>
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<td>Both 6 TNCC</td>
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<td>NOCTI</td>
<td>8286</td>
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<td><strong>Information Technology</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1 yr program)</td>
<td>Computer Systems Technology I,II</td>
<td>Butler Farm</td>
<td>Both 3 TNCC</td>
<td></td>
<td>NOCTI</td>
<td>8622/8623</td>
</tr>
<tr>
<td>(1 yr program)</td>
<td>Computer Networking /Cyber Security</td>
<td>Woodside Lane</td>
<td>Both 6 TNCC</td>
<td></td>
<td>CISCO CCEN* CCNA</td>
<td>8542/8543/8544</td>
</tr>
<tr>
<td>(1 yr program)</td>
<td>Computer Programming I and Advanced</td>
<td>Woodside Lane</td>
<td>Both 6 TNCC</td>
<td></td>
<td>C++</td>
<td>6640/6641</td>
</tr>
<tr>
<td>(1 yr program)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1 yr program)</td>
<td>Criminal Justice</td>
<td>Both</td>
<td>Both 6 TNCC</td>
<td></td>
<td>NOCTI</td>
<td>8702/8703</td>
</tr>
<tr>
<td>(1 yr program)</td>
<td>Emergency Medical Technician@</td>
<td>Butler Farm</td>
<td>Both 9 TNCC</td>
<td></td>
<td>EMT</td>
<td>8333/8334</td>
</tr>
<tr>
<td>(1 yr program)</td>
<td>Fire Fighter</td>
<td>Butler Farm</td>
<td>Both PM only 6 TNCC</td>
<td></td>
<td>Fire Fighter I &amp; II</td>
<td>8705/8706</td>
</tr>
</tbody>
</table>

**NOTE:** All course offerings listed above are contingent upon the necessary number of students enrolling in them. If a class does not attain minimum requirements then it may be cancelled. As such, students are strongly encouraged to choose more than one course when completing an enrollment application.

* The Butler Farm (BF) Campus is located at 520 Butler Farm Road in Hampton VA while the Woodside Lane (WL) Campus is at 13400 Woodside Lane in Newport News, Virginia.
@Selected students may be invited to return for a second year program. Very limited number of positions available.
** New program contingent upon approval in the 2017-2018 budget.

Revised October 18, 2016
TNCC GENERAL EDUCATION CERTIFICATE

The following articulates a pathway for a qualifying student within Hampton City Schools to complete the TNCC General Education Certificate concurrent with high school graduation:

*These courses may be taken at a HCS high school. Completing courses in Column A will result in credit awarded at TNCC for courses in Column B if qualifications are met as noted below.*

<table>
<thead>
<tr>
<th>COLUMN A</th>
<th>COLUMN B</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCS #</td>
<td>HCS Course Name</td>
</tr>
<tr>
<td>2319</td>
<td>AP US History</td>
</tr>
<tr>
<td>4370</td>
<td>AP Biology</td>
</tr>
<tr>
<td>4570</td>
<td>AP Physics B</td>
</tr>
<tr>
<td>DE1602</td>
<td>Honors English 12 (DE)</td>
</tr>
<tr>
<td>3135</td>
<td>Algebra II, or</td>
</tr>
<tr>
<td>3163</td>
<td>Elementary Functions, or</td>
</tr>
<tr>
<td>3162</td>
<td>Pre-Calculus. or</td>
</tr>
<tr>
<td>3177</td>
<td>Calculus</td>
</tr>
</tbody>
</table>

*These courses may be taken on campus at TNCC. Completing courses in Column A will result in credit awarded at Hampton City Schools for courses in Column B if qualifications are met as noted below.*

<table>
<thead>
<tr>
<th>COLUMN A</th>
<th>COLUMN B</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNCC Course #</td>
<td>TNCC Course Name</td>
</tr>
<tr>
<td>BIO 101 OR CHM 101</td>
<td>General Biology I OR General Chemistry I</td>
</tr>
<tr>
<td>BIO 102 OR CHM 102</td>
<td>General Biology II OR General Chemistry II</td>
</tr>
<tr>
<td>CST 100 OR CST 126</td>
<td>Principles of Public Speaking OR Interpersonal Communication</td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

Notes:
(1) Any modifications to the above pathway will be outlined in writing and agreed upon by the college and school division. Any modifications will not prevent students from obtaining the plan’s intended credential.
(2) In order to participate in the above pathway, a student must meet all dual enrollment admission requirements and college program requirements and complete VCCS placement tests. In order to enroll in any of the courses noted in the pathway, all course pre-requisites must be met.
(3) AP courses must be passed with a score of 3 or higher on the AP examination in order to be counted towards DE credits.
(4) TNCC courses must be taken at the TNCC campus or through an approved online format.
(5) HCS Credits are based on .5 per semester, and are weighted in accordance with HCS policy as outlined in the Course Offering Handbook.
(6) Program information including purpose, occupational objectives, admission requirements, notes, computer competency requirements, and course requirements may be found in the College catalog found at www.tncc.edu.
TNCC ASSOCIATES DEGREE OF SOCIAL SCIENCE

The following articulates a pathway for a qualifying student within Hampton City Schools to complete the TNCC Associates of Science in Social Science concurrent with high school graduation:

These courses may be taken at a HCS high school. Completing courses in Column A will result in credit awarded at TNCC for courses in Column B if qualifications are met as noted below.

<table>
<thead>
<tr>
<th>COLUMN A</th>
<th>COLUMN B</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCS #</td>
<td>HCS Course Name</td>
</tr>
<tr>
<td>2212</td>
<td>AP Human Geography</td>
</tr>
<tr>
<td>2380</td>
<td>AP World History</td>
</tr>
<tr>
<td>2319</td>
<td>AP US History</td>
</tr>
<tr>
<td>4370</td>
<td>AP Biology</td>
</tr>
<tr>
<td>4470</td>
<td>AP Chemistry, OR</td>
</tr>
<tr>
<td>4570</td>
<td>AP Physics I</td>
</tr>
<tr>
<td>2902</td>
<td>AP Psychology</td>
</tr>
<tr>
<td>3163</td>
<td>Elementary Functions, or</td>
</tr>
<tr>
<td>3162</td>
<td>Pre-Calculus</td>
</tr>
<tr>
<td>3177</td>
<td>AP Calculus BC</td>
</tr>
<tr>
<td>1196</td>
<td>AP English Lang 11 and</td>
</tr>
<tr>
<td>1195</td>
<td>AP English Lit 12</td>
</tr>
<tr>
<td>2445</td>
<td>AP US Government &amp; Politics</td>
</tr>
</tbody>
</table>

These courses may be taken on campus at TNCC. Completing courses in Column A will result in credit awarded at Hampton City Schools for courses in Column B if qualifications are met as noted below.

<table>
<thead>
<tr>
<th>COLUMN A</th>
<th>COLUMN B</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNCC Course #</td>
<td>TNCC Course Name</td>
</tr>
<tr>
<td>BIO 101 OR</td>
<td>General Biology I OR</td>
</tr>
<tr>
<td>CHM 101</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>BIO 102 OR</td>
<td>General Biology II OR</td>
</tr>
<tr>
<td>CHM 102</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CST 100</td>
<td>Principles of Public Speaking</td>
</tr>
<tr>
<td>HLT 106</td>
<td>First Aid &amp; Safety</td>
</tr>
<tr>
<td>HUM 201</td>
<td>Survey of Western Culture I</td>
</tr>
<tr>
<td>HUM 202</td>
<td>Survey of Western Culture II</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Introduction to Computer Applications</td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
</tr>
<tr>
<td>2 Approved</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
(1) Any modifications to the above pathway will be outlined in writing and agreed upon by the college and school division. Any modifications will not prevent students from obtaining the plan’s intended credential.
(2) In order to participate in the above pathway, a student must meet all dual enrollment admission requirements and college program requirements and complete VCCS placement tests. In order to enroll in any of the courses noted in the pathway, all course pre-requisites must be met.
(3) AP courses must be passed with a score of 3 or higher on the AP examination in order to be counted towards DE credits.
(4) TNCC courses must be taken at the TNCC campus or through an approved online format.
(5) HCS Credits are based on .5 per semester, and are weighted in accordance with HCS policy as outlined in the Course Offering Handbook.
(6) Program information including purpose, occupational objectives, admission requirements, notes, computer competency requirements, and course requirements may be found in the College catalog found at www.tncc.edu.
Hampton City Schools Dual Enrollment Course Offerings

**DE English 111 College Composition I (1601)**
Level 4  
(3 college credits)  
ENG 111/112 must be taken in sequence. Prerequisite(s): "C" average or better for four units of high school English (or equivalent) and ENF 1 or ENF 2 as demonstrated through the placement and diagnostics tests or equivalent. Develops writing ability for study, work, and other areas of writing based on experience, observation, research, and reading of selected literature. Guides students in learning writing as a process: understanding audience and purpose, exploring ideas and information composing, revisions, and editing. Supports writing by integrating experiences in thinking, reading, listening, and speaking.

**DE English 112 College Composition II (1602)**
Level 4  
(3 college credits) Prerequisite(s): ENG 111. Develops writing ability for study, work, and other areas of writing based on experience, observation, research, and reading of selected literature. Guides students in learning writing as a process: understanding audience and purpose, exploring ideas and information composing, revisions, and editing. Supports writing by integrating experiences in thinking, reading, listening, and speaking.

**DE Math 158 College Algebra (3230)**
Level 3  
(3 college credits) Prerequisite(s): Competency in Math Essentials units MTE 1-9 as demonstrated through the placement and diagnostic tests, or by satisfactorily completing the required Math Essentials units or equivalent. Covers the structure of complex number systems, polynomials, rational expressions, graphing, systems of equations and inequalities and functions, quadratic and rational equations and inequalities.

**DE Math 163 Pre-Calculus I (3230)**
Level 3  
Students are required to have a graphing calculator for this course. The TI-83 or TI-83 Plus is recommended. Prerequisite(s): Qualifying Placement Test score, MTE 1-9 or equivalent units 1-9. (3 college credits). Presents topics in college algebra, matrices and determinants, and algebraic, exponential, and logarithmic functions.

**DE Biology 101 General Biology I (4700)**
Level 4  
(4 college credits) BIO 101/102 must be taken in sequence. Prerequisite(s): ENF 1 or ENF 2 and competency in Math Essentials units 1-5 as demonstrated through the placement and diagnostics tests or equivalent. Explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. Introduces the diversity of living organisms, their structure, function, and evolution.

**DE Biology 102 General Biology II (4700)**
Level 4  
(4 college credits) BIO 101/102 must be taken in sequence. Prerequisite(s): for BIO 102 is BIO 101. Explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. Introduces the diversity of living organisms, their structure, function, and evolution.

**DE Geology 111 Oceanography I (4702)**
Level 4  
(4 college credits) Prerequisite(s): ENF 1 or ENF 2 and competency in Math Essentials units 1-5 as demonstrated through the placement and diagnostic tests or equivalent. Examines the dynamics of the oceans and ocean basins. Applies the principles of physical, chemical, biological, and geological oceanography. Part I of II.

**DE Geology 112 Oceanography II (4702)**
Level 4  
(4 college credits) Prerequisite(s): GOL 111 Examines the dynamics of the oceans and ocean basins. Applies the principles of physical, chemical, biological, and geological oceanography. Part II of II. Lecture 3 hours.

**DE History 121 United States History I (2952)**
Level 4  
(3 college credits) Prerequisite(s): ENF 1 or ENF 2 as demonstrated through the placement and diagnostics tests or equivalent. Surveys United States history from its beginning to the present.
DE History 122 United States History II  (2952)
Level 4
(3 college credits) Prerequisite(s): ENF 1 or ENF 2 as demonstrated through the placement and diagnostics tests or equivalent. Surveys United States history from its beginning to the present.

DE Marketing 100 Principles of Marketing  (8130)
Level 2
(3 college credits) Prerequisite(s): ENF 1 or ENF 2 as demonstrated through the placement and diagnostics tests or equivalent. Presents principles, methods, and problems involved in the marketing of goods, services, and ideas to consumers and organizational buyers. Discusses present-day problems and policies connected with distribution and sale of products, pricing, promotion, and buyer motivation. Examines variations of the market research, plus legal, social, ethical, and international considerations in marketing.
International Baccalaureate Program:
Hampton High School: An International Baccalaureate World School

Students in Grades 9 and 10 will participate in Hampton City School’s Pre-IB Program. This program helps prepare students for entrance into the IB Diploma Program in the 11th grade. Students in the IB Diploma Program (Grades 11 and 12) are mandated to take at least six (6) IB Diploma Program courses. At least 3, but not more than 4, of these courses will be taken at the Higher Level (HL), with the rest taken at the Standard Level (SL). All IB Diploma Program students will be expected to complete the requirements for the Advanced Studies Diploma in addition to their IB Diploma Program coursework. In addition, all IB Diploma Program students must complete an Extended Essay, participate in CAS (Creativity, Action, and Service) hours, and complete the IB Theory of Knowledge requirements.

Students who apply for entrance into the IB Program at Hampton School for their ninth grade year should have completed at least Algebra I. It is preferred that students complete Spanish I or French I as well. Students must also have a minimum GPA of 3.0 in their middle school coursework.

Applications for the Pre-Diploma and International Baccalaureate Program at Hampton High School are available at the IB website (http://www.hampton.k12.va.us/departments/ib/ib.html#.VABo4Ma6wuE), in middle school guidance offices, and at Hampton High School. Please feel free to contact the district coordinator at 757-896-5745 with any questions.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11 (DP Year 1)</th>
<th>Grade 12 (DP Year 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1: Language A</td>
<td>HCS Pre-IB English 9</td>
<td>HCS Pre-IB English 10</td>
<td>IB English 11</td>
<td>IB English 12</td>
</tr>
<tr>
<td>Group 2: Language B</td>
<td>HCS Pre-IB French II</td>
<td>HCS Pre-IB French III</td>
<td>IB French IV SL/HL</td>
<td>IB French V SL/HL</td>
</tr>
<tr>
<td></td>
<td>HCS Pre-IB French III</td>
<td>HCS Pre-IB French IV SL/HL</td>
<td>IB French V SL/HL</td>
<td>IB French VI SL/HL</td>
</tr>
<tr>
<td></td>
<td>HCS Pre-IB Spanish II</td>
<td>HCS Pre-IB Spanish III</td>
<td>IB Spanish IV SL/HL</td>
<td>IB Spanish V SL/HL</td>
</tr>
<tr>
<td></td>
<td>HCS Pre-IB Spanish III</td>
<td>HCS Pre-IB Spanish IV SL/HL</td>
<td>IB Spanish V SL/HL</td>
<td>IB Spanish VI SL/HL</td>
</tr>
</tbody>
</table>

OR
IB German SL I (Available if students request a new language for the DP)

OR
IB German SL II (Available if students request a new language for the DP)

Group 3: Individuals and Societies | AP World History | HCS Pre-IB /AP Government | IB World History Topics HL | IB History of the Americas HL |

IB Psychology |
IB Information Technology in a Global Society |

IB Psychology II |
IB Information Technology in a Global Society II |

Group 4: Experimental Sciences (Students must choose at least one science in the IB Diploma Program) | HCS Pre-IB Biology | HCS Pre-IB Chemistry | IB Biology HL I | IB Biology HL II |

OR
IB Biology SL I |

IB Chemistry HL I |

IB Physics SL I |

IB Environ. Systems & Societies SL I |

IB Biology SL II |

IB Chemistry HL II |

IB Physics SL II |

IB Environ. Systems & Societies SL II |

Group 5: Mathematics | HCS Pre-IB Geometry | HCS Pre-IB Algebra II/Trig. | IB Math Studies I SL or IB Math SL I | IB Math Studies II SL or IB Math SL II |

HCS Pre-IB Algebra II/Trig. | HCS Pre-IB Pre-Calculus | IB Math SL I or IB Math HL I |

IB Math SL II or IB Math HL II |

HCS Pre-IB Pre-Calculus | AP AB Calculus | IB Math HL I | IB Math HL II |

Group 6: Arts/Elective | Health & PE I | Health & PE II | IB Art SL or HL | IB Art SL or HL II |

OR
2nd subject from Groups 2-4 |

OR
2nd subject from Groups 1-5 |

Additional Courses and IB Requirements | HCS Pre-IB Inquiry (Recommended) | Economics and Personal Finance (VDOE Requirement) | Integrated United States History (Fulfills IB TOK and VA/US History SOL Requirement) | IB Theory of Knowledge (IB Diploma Program Requirement) |

Elective Option | Student Choice | Student Choice | Student Choice | Student Choice |
PROMOTION REQUIREMENTS:
STANDARD & ADVANCED STUDIES DIPLOMAS

From Grade 9 to 10. ................................................. 5 Standard Credits
   English ......................................................... 1 credit
   Additional Core Class* ..................................... 1 credit
   Other ............................................................ 3 credits
      Earn One (1) Verified Credit

From Grade 10 to 11. .............................................. 10 Standard Credits
   English .......................................................... 2 credits
   Mathematics .................................................... 1 credit
   Science .......................................................... 1 credit
   Social Studies .................................................. 1 credit
   Additional Core Class* ...................................... 1 credit
   Other ............................................................ 4 credits
      Earn Two (2) Verified Credits

From Grade 11 to 12. .............................................. 16 Standard Credits
   English .......................................................... 3 credits
   Mathematics .................................................... 2 credits
   Science .......................................................... 2 credits
   Social Studies .................................................. 2 credits
   Additional Core Class* ...................................... 1 credit
   Other ............................................................ 6 credits
      Earn Four (4) Verified Credits
To graduate with a STANDARD DIPLOMA, a student must earn at least 22 standard units of credit by passing required courses and electives, and earn at least six verified credits by passing end-of-course SOL tests or other assessments approved by the Board of Education.

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Standard Credits: effective with first-time ninth graders in 2011-2012 and beyond</th>
<th>Verified Credits: effective for first-time ninth graders in 2003-2004 and beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory Science</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>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. 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 (1) the student selected verified credit and (2) 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History &amp; Social Sciences</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>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. 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 (1) the student selected verified credit and (2) 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health &amp; Physical Education</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Fine Arts or Career &amp; Technical Education</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Pursuant to Section 22.1-253.13:4, Code of Virginia, credits earned for this requirement shall include one credit in fine or performing arts or career and technical education.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics and Personal Finance</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Selected Test</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>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 8 VAC 20-131-110.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>6</td>
</tr>
</tbody>
</table>

Electives

- **Sequential Electives** – Effective with the graduating class of 2003, students who wish to receive a Standard Diploma must successfully complete two sequential electives.
  - 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.

- **Fine Arts and Career and Technical Education** – The Standard and Advanced Studies Diplomas each contain a requirement for one standard unit of credit in Fine Arts or Career and Technical Education.

**ADDITIONAL NOTE** for students entering ninth grade for the first time in 2013-2014, a student must also: Earn a board-approved career and technical education credential to graduate with a Standard Diploma; and Successfully complete one virtual course, which may be non-credit bearing.
To graduate with an ADVANCED STUDIES DIPLOMA, a student must earn at least 26 standard units of credit by passing required courses and electives, and earn at least nine verified credits by passing end-of-course SOL tests or other assessments approved by the Board of Education.

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Standard Credits: effective with first-time ninth graders in 2011-2012 and beyond</th>
<th>Verified Credits: effective with ninth graders in 2000-2001 and beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory Science</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>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 courses to satisfy this requirement.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History &amp; Social Sciences</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>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 courses to satisfy this requirement.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health &amp; Physical Education</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Fine Arts or Career &amp; Technical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Foreign Languages</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics and Personal Finance</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Student Selected Test</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>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 VAC 20-131-110.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>9</td>
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</tbody>
</table>

**Electives**

**Fine Arts and Career and Technical Education** - The Standard and Advanced Studies Diplomas each contain a requirement for one standard unit of credit in Fine Arts or Career and Technical Education. The Standards of Accreditation do not require that courses used to satisfy the requirement of Fine Arts or Career and Technical Education be approved by the Board. Therefore, local school officials should use their own judgment in determining which courses students take to satisfy this requirement.

**Foreign Language** - The Advanced Studies Diploma contains a requirement for either three years of one foreign language or two years of two languages. In March 1998, the Board of Education approved the provision of three years of instruction in American Sign Language (ASL) for foreign language credit toward an Advanced Studies Diploma; other foreign languages will satisfy this requirement as well.

**ADDITIONAL NOTE** for students entering ninth grade for the first time in 2013-2014, a student must also: Successfully complete one virtual course, which may be non-credit bearing.
ADDITIONAL DIPLOMA & CERTIFICATE OPTIONS

For Students Identified as Having Disabilities

The Modified Standard Diploma will not be an option for students with disabilities who enter the ninth grade for the first time beginning in 2013-14. Credit accommodations allow students with disabilities who previously would have pursued a Modified Standard Diploma to earn a Standard Diploma.

The Applied Studies Diploma is granted when a student does not qualify for other diplomas, but does meet the requirements of the Individualized Education Plan developed for that student. Students who earn this diploma may participate in commencement exercises.

The Certificate of Program Completion
The Certificate of Program Completion is designed for a student who has earned all the required standard credits for graduation, but has not earned the appropriate corresponding verified credits. The student will be given the opportunity to earn verified credits in the summer and subsequent administrations of the SOL tests. If the student earns the appropriate verified credits, he/she will be considered a graduate and earn the appropriate diploma. Students awarded the Certificate of Program Completion will not participate in commencement exercises.

General Achievement Diploma
Available to students 18 years or older who meet the criteria set by the Board of Education. The General Achievement Diploma is intended to provide a diploma option for high school dropouts and individuals who exit high school without a diploma. It should not be a first option for high school students.

General Education Development Certificates (GED)
For eligibility information please contact the GED office, housed at The Campus @ Lee, 1646 Briarfield Rd, or contact them at 757-727-1327.
DIPLOMA SEALS

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

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

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

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

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

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

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

American Sign Language qualifies as a language other than English.
TRANSFER STUDENTS

Graduation requirements for a student transferring into a Virginia public school for the first time in grades 9-12, depends on the grade the student is transferring into and when in the school year the student is transferring. A student is considered to have transferred at the “beginning” of the school year if 20 or fewer hours of instruction have been completed. A student is considered to have transferred “during” the school year if more than 20 hours of instruction have been completed.

<table>
<thead>
<tr>
<th>STANDARD DIPLOMA VERIFIED CREDIT REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>During 9th Grade OR Beginning of 10th Grade</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>During 10th Grade OR Beginning of 11th Grade</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>During 11th Grade OR Beginning of 12th Grade</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>During 12th Grade</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADVANCED STUDIES DIPLOMA VERIFIED CREDIT REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>During 9th Grade OR Beginning of 10th Grade</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>During 10th Grade OR Beginning of 11th Grade</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>During 11th Grade OR Beginning of 12th Grade</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>During 12th Grade</td>
</tr>
</tbody>
</table>

LOCALLY AWARDED VERIFIED CREDITS

The Virginia Board of Education has set forth procedures and criteria for local school boards to award verified credits to students who have not met this requirement for the Standard Diploma.

Students who do not pass Standards of Learning tests in science or history/social science may receive locally awarded verified credit from the local school board in accordance with criteria established in guidelines adopted by the Board of Education. Locally verified credits awarded through this process cannot be used if the student changes to the Advanced Studies Diploma track.

The criterion is as follows:
1. Students must have earned fewer than four student-selected verified credits to qualify for locally awarded credit.
2. Students having a cumulative GPA of 2.0 or better in the course, must have taken the test at least twice and scored between 375-399 at least once.
3. Students having a cumulative GPA between 1.99 and 1.00 in the course, must have taken the test at least twice and scored between 385-399 at least once.
4-Year Timeline for High School Success

Freshman Year
The Counselor, Parent and Student Will…
• Review the Academic & Career Plan (ACP) developed in middle school
• Ensure ACP reflects goals and interests
• Monitor student’s adjustment to high school
• Plan extracurricular activities, volunteer and community organizations and summer activities to enhance the student’s high school experience
• Review student’s academic progress and select courses for the following school year
• Students with disabilities apply for college admission test accommodations

Sophomore Year
The Counselor, Parent and Student Will…
• Review the ACP
• Discuss student’s past summer activities and extracurricular plans for the current year
• Take the PSAT (Preliminary Scholastic Aptitude Test)
• Review student’s academic progress and select courses for the following school year
• Discuss options available at New Horizons for industry certifications and/or licensure

Junior Year
The Counselor, Parent and Student Will…
• Review academic history for accuracy, and status of meeting graduation requirements
• Discuss post-secondary plans and necessary steps to meet these goals
• Become familiar with college and other post-secondary options
• Identify several options to choose from (4 or 2 year college; technical school; military)
• Review PSAT scores noting areas of strength and those needing improvement
• Take the PSAT for National Merit Scholarship Qualifying Test eligibility
• Take the SAT and/or ACT or other required admissions criteria
• Begin visits to colleges and/or other options to narrow choices
• Review admissions and financial requirements of choices

Senior Year (1st semester)
The Counselor, Parent and Student Will…
• Review transcript for graduation status
• Discuss final post-secondary plans
• Develop a plan of the steps necessary to be prepared for your final goal
• Conduct scholarship search and other financial aid offers
The Student Will…
• Request applications, letters of recommendations, transcripts as required
• Retake the SAT and/or ACT if necessary
• Submit necessary applications
• Maintain grades and extracurricular activities

Senior Year (2nd semester)
The Counselor, Parent and Student Will…
• Review transcript for graduation status
The Parent Will…
• Complete financial aid forms (FAFSA)
The Student Will…
• Notify counselor, college and/or other institutions of acceptance decision
• Notify counselor of scholarship offers
• Request final transcript to be sent to final choice
2016 Division I New Academic Requirements

The Initial-Eligibility Standards for NCAA Division I
College-Bound Student-Athletes are Changing

Division I
College-bound student-athletes first entering an NCAA Division I college or university on or after August 1, 2016, will need to meet new academic rules in order to receive athletics aid (scholarship), practice or compete during their first year.

What are the New Division I Requirements?

<table>
<thead>
<tr>
<th>Full Qualifier</th>
<th>Academic Redshirt</th>
<th>Nonqualifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete 16 Core Courses:</td>
<td>Complete 16 core courses.</td>
<td>Does not meet requirements for Full Qualifier or Academic Redshirt status.</td>
</tr>
<tr>
<td>• Ten of the 16 core courses must be complete before the seventh semester (senior year) of high school.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Seven of the 10 core courses must be in English, Math, or Science.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum Core-Course GPA of 2.300.</td>
<td>Minimum Core-Course GPA of 2.000.</td>
<td></td>
</tr>
<tr>
<td>Meet the sliding scale requirement of GPA and ACT/SAT score.*</td>
<td>Meet the sliding scale requirement of GPA and ACT/SAT score.*</td>
<td></td>
</tr>
<tr>
<td>Graduate from high school.</td>
<td>Graduate from high school.</td>
<td></td>
</tr>
</tbody>
</table>

* To view the sliding scales, please click here.

**Full Qualifying:** A college-bound student-athlete may receive athletics aid (scholarship), practice and compete in the first year of enrollment at the Division I college or university.

**Academic Redshirt:** A college-bound student-athlete may receive athletics aid (scholarship) in the first year of enrollment and may practice in the first regular academic term (semester or quarter) but may NOT compete in the first year of enrollment. After the first term is complete, the college-bound student-athlete must be academically successful at his/her college or university to continue to practice for the rest of the year.

**Nonqualify:** A college-bound student-athlete cannot receive athletics aid (scholarship), cannot practice and cannot compete in the first year of enrollment.

**Examples**

Q: A college-bound student-athlete completes nine core courses prior to the seventh semester of high school. What is the college-bound student-athlete’s initial-eligibility status?

A: The college-bound student-athlete cannot be certified as a qualifier because only nine of the 10 required courses were completed before the seventh semester. He/she would be permitted to practice and receive aid (scholarship), provided he/she presents 16 core courses and meets the necessary core-course GPA and test score requirement at the time of graduation.

Q: A college-bound student-athlete completes 16 core courses in the required framework with a 2.200 core-course GPA and a 78 sum ACT. What is the college-bound student-athlete’s initial-eligibility status?

A: The college-bound student-athlete is an academic redshirt under the new sliding scale because the minimum GPA requirement is 2.300. See sliding scale, please click here.

Q: A college-bound student-athlete completes 15 core courses with a 2.500 core-course GPA and an 820 SAT score (critical reading and math). What is the college-bound student-athlete’s NCAA initial-eligibility status?

A: The college-bound student-athlete is a nonqualifier because only 15 core courses were completed, not the required 16 core courses.

For additional information on these requirements, please visit www.eligibilitycenter.org.
<table>
<thead>
<tr>
<th>School Name</th>
<th>Composite</th>
<th>Math</th>
<th>Critical Reading</th>
<th>Writing</th>
<th>SAT</th>
<th>ACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia Western College</td>
<td>Private</td>
<td>465</td>
<td>922</td>
<td>70</td>
<td>1022</td>
<td></td>
</tr>
<tr>
<td>Virginia Union University</td>
<td>Private</td>
<td>438</td>
<td>682</td>
<td>88</td>
<td>1060</td>
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</tr>
<tr>
<td>Virginia Tech, Blacksburg</td>
<td>Public</td>
<td>382</td>
<td>692</td>
<td>78</td>
<td>988</td>
<td></td>
</tr>
<tr>
<td>Virginia State University</td>
<td>Public</td>
<td>270</td>
<td>632</td>
<td>73</td>
<td>850</td>
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<tr>
<td>Virginia Military Institute</td>
<td>Public</td>
<td>303</td>
<td>625</td>
<td>80</td>
<td>960</td>
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<tr>
<td>Virginia Commonwealth University</td>
<td>Public</td>
<td>280</td>
<td>815</td>
<td>102</td>
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<td>University of Virginia</td>
<td>Public</td>
<td>600</td>
<td>820</td>
<td>110</td>
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<tr>
<td>University of Richmond</td>
<td>Private</td>
<td>590</td>
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<td>115</td>
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<td>University of Mary Washington</td>
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<td>480</td>
<td>780</td>
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<tr>
<td>Old Dominion University</td>
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<td>370</td>
<td>580</td>
<td>80</td>
<td>1060</td>
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<tr>
<td>Norfolk State University</td>
<td>Public</td>
<td>370</td>
<td>580</td>
<td>80</td>
<td>1060</td>
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<tr>
<td>Mary Baldwin College</td>
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<td>500</td>
<td>700</td>
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<td>368</td>
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<td>Virginia College of Liberal Arts</td>
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<td>650</td>
<td>70</td>
<td>1020</td>
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<tr>
<td>Christopher Newport University</td>
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<td>350</td>
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<td>70</td>
<td>1020</td>
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<td>Bridgewater College</td>
<td>Private</td>
<td>480</td>
<td>800</td>
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<td>1180</td>
<td></td>
</tr>
</tbody>
</table>

(profile of 2016 first-time freshmen)

What Do I Need To Get Into A Four-Year College?