Dear Students & Families,

Welcome to the High School Curriculum Guide for the 2020-2021 school year. This document is intended to assist students and families in the course selection process.

High school is an exciting time where students can take interesting electives, in addition to their New York State graduation requirements, to better understand their passions and interests for their future endeavors. Students should use this document as a planning guide for their intended coursework while at Hoosick Falls Central School District.

Please contact our College and Career Center if you have any questions.

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Note: Every attempt will be made to honor program requests. Some courses described in this booklet are tentative. Many factors, e.g., enrollment, staffing, budgeting, scheduling, etc., may affect final determination of actual course offerings.

The mission of the Hoosick Falls Central School District is to develop responsible citizens who possess the knowledge, skills, and values to be successful participants in a global society.

Statement of Nondiscrimination

Except as otherwise provided by law, no student, teacher, administrator, employee, parent, or applicant for employment shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity within the jurisdiction of the Hoosick Falls Central School District on the basis of religion, race, color, gender, or handicap.
ADD/DROP DEADLINES FOR 2020-2021

Fall Semester & Full Year Courses:
September 11, 2020

Spring Semester Courses:
February 5, 2021

**Please note:**
Requests for dropping a course or changing a course level after the following deadlines require administrative approval. If approval is granted, a grade of “Withdrawal Pass” or “Withdrawal Fail” will appear on the final transcript depending on the student’s grade status on the date of the drop or level change. Signatures from a parent, teacher and chairperson are required for changes after the deadline.

HOW SCHEDULING WORKS

December 2 - December 20
Curriculum Guide available online
Department promotional videos shared with students
Counselors visit classrooms for course selections

January 6 - January 31
Counselors input course selections
Teacher recommendations due to guidance

February 3 - February 28
Counselors cross-reference recommendations and selections, meet with students/families to remedy discrepancies

April 1 - May 30
Master schedule build
Class conflicts resolved

June 1 - June 30
Teachers given courses and tentative schedule for 2020-2021
Students tentative schedules mailed home with final report card

July 1 - August 25
Counselors available by appointment to make schedule changes
Counselors finalize summer school grades/scores

August 26
Final schedules mailed home for 2020-2021 school year

September 2 - September 11
Add/Drop period for fall semester and full year courses

September 12 and beyond
Add/Drop requires administrative approval **See side note
# New York State Graduation Requirements & Diploma Types

<table>
<thead>
<tr>
<th>Diploma Type</th>
<th>Course Requirements for High School Graduation</th>
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</thead>
<tbody>
<tr>
<td><strong>Regents</strong></td>
<td><strong>Credits:</strong> 22 units of credit that include: 4 ELA, 4 Social Studies, 3 Science, 3 Math, ½ Health, 1 Arts, 1 Language other than English (LOTE), 2 Physical Education, 3 ½ Electives</td>
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<tr>
<td></td>
<td><strong>Assessments:</strong> 4 Required exams with a score of 65 or higher in the following areas of study: ELA, 1 Social Studies, 1 Science, and 1 Math</td>
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<tr>
<td></td>
<td>The student must also choose one of the following exams: Additional Social Studies, Additional Science Exam, Additional Math Exam, Approved CTE, LOTE, or *Arts Pathways Assessment</td>
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<tr>
<td></td>
<td>Students can receive Honors distinction with a computed average score of 90 or better for the 5 Required exams (Students can also be granted diploma through an appeal for an exam with a score between 60-64)</td>
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<tr>
<td><strong>Regents with Advanced Designation</strong></td>
<td><strong>Credits:</strong> 22 units of credit that include: 4 ELA, 4 Social Studies, 3 Science, 3 Math, ½ Health, 1 Arts, 1 Language other than English (LOTE), 2 Physical Education, 3 ½ Electives. In addition, a student must earn an additional 2 credits in LOTE or a 5 unit sequence in the Arts or CTE. These are not additional credit and can be included within the 22 required credits</td>
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<td><strong>Assessments:</strong> 9 Required Regents exams with a score of 65 or higher in the following areas of study: ELA, Global History and Geography, US History and Government, 2 Science (1 Life 1Physical), 3 Math, and either a locally developed LOTE exam or a 5 unit sequence in the Arts or CTE</td>
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<tr>
<td></td>
<td>Students can receive Honors distinction with a computed average score of 90 or better for 8 of the Required exams (LOTE exam is not included in the calculation)</td>
</tr>
<tr>
<td><strong>Local</strong></td>
<td><strong>Credits:</strong> 22 units of credit that include: 4 ELA, 4 Social Studies, 3 Science, 3 Math, ½ Health, 1 Arts, 1 Language other than English (LOTE), 2 Physical Education, 3 ½ Electives</td>
</tr>
<tr>
<td></td>
<td><strong>Assessments:</strong> 5 Required Regents exams: ELA, 1 Social Studies, 1 Science, 1 Math, and 1 Pathways Assessment with a score of 65 or higher on 3 exams and a score of 60-64 on the remaining 2 exams</td>
</tr>
</tbody>
</table>

5 Unit Sequence in the Arts or CTE: Students completing a five-unit sequence in career and technical education or the arts (visual arts, music, dance, and theatre) are not required to complete the additional two units of the language other than English requirement for the Regents diploma with advanced designation but must still meet the requirements for the total number of units of credit. Students can obtain the 5 unit sequence in both Visual Arts and Music by taking 3 credits in one discipline and 2 credits in the other.

CTE Technical Endorsement: Can be applied to Local, Regents, and Regents with Advanced Designation diplomas if the students have completed the requirements listed above and have completed a CTE approved program and passed an associated technical assessment. CTE Technical Endorsement

Mastery in Math or Science: Can be applied to a Regents with Advanced Designation diploma if the student has completed the requirements listed above and pass with a score of 85 or higher on 3 Math and/or Science
DIPLOMA | COURSE REQUIREMENTS FOR HIGH SCHOOL GRADUATION
--- | ---
Local (via Low Pass Safety Net) | • **Credits:** 22 units of credit that include: 4 ELA, 4 Social Studies, 3 Science, 3 Math, ½ Health, 1 Arts, 1 Language other than English (LOTE)*, 2 Physical Education, 3 ½ Electives
• **Assessments:** 5 Required Regents exams: ELA, 1 Social Studies, 1 Science, 1 Math, and 1 Pathways Assessment with a score between 55-64

*A student with a disability may be exempt from the LOTE requirement with a recommendation from CSE but must still meet the required 22 credits

Local (via Compensatory Safety Net) | • **Credits:** 22 units of credit that include: 4 ELA, 4 Social Studies, 3 Science, 3 Math, ½ Health, 1 Arts, 1 Language other than English (LOTE)*, 2 Physical Education, 3 ½ Electives
• **Assessments:** 5 Required Regents exams: ELA, 1 Social Studies, 1 Science, 1 Math, and 1 Pathways Assessment
  • Scores of 45-54 on any required exam except ELA and Math can be compensated by a score of 65 or above on another required exam including ELA or Math
  • Students must achieve a score of 55 or higher on ELA and Math
  • Students must pass the course in which they earned a score of 45-54 and have satisfactory attendance

*A student with a disability may be exempt from the LOTE requirement with a recommendation from CSE but must still meet the required 22 credits

HIGH SCHOOL TESTING

**AP (Advanced Placement)**
Ten Advanced Placement courses are offered at Hoosick Falls High School. Advanced Placement (AP) is offered by the College Board and offers students a chance to take college level classes and potentially earn college credit based on their exam score. Exams are scored 1-5, with many colleges offering credits for scores of 3 and above.

**P.S.A.T.**
The P.S.A.T. (Practice Stanford Achievement Test) is offered by the College Board and is administered in October during the school day. The standardized test is meant to give students a chance to experience what it may be like on the S.A.T. All Juniors and Sophomores are invited to take this examination. The P.S.A.T. is also the National Merit Scholarship qualifying test, which means Juniors who score well compete to earn scholarship money. The test is given in October and students and parents will be made aware of its date and time.

**SAT I, SAT Subject Test, and ACT**
The college entry exams, S.A.T. and A.C.T. are usually taken in the spring of Junior year and/or fall of the Senior year. Registration materials for S.A.T. I and II and A.C.T. are available in the College and Career Center. Please see http://collegeboard.com or http://.act.org for any questions or contact your school counselor.

**ASVAB Career Exploration Program**
The ASVAB is a test and then review program that allows students to identify strengths in the areas of verbal, math, and science and technical skills. The test is followed up with presentation to explain and use results to help students find out how their interest and skills relate to more than 400 occupations and start making educational and career plans. The test is free and given to all students, unless an opt out letter is sent to the school. Scores are never released to anyone other than the student and the school, including the military.
Mindfulness
Hoosick Falls Central School utilizes mindful practice as part of our social emotional student support framework within our school. This initiative consists of a few moments of quiet reflection and calm breathing at the start of each school day, and again in the afternoon to refocus young minds on learning. Students develop skills and strategies necessary for better managing the stressors that can often disrupt learning.

Senior Guide Period
Hoosick Falls High School offers each twelfth grade student a “Guide Period”. Guide Period is an opportunity to connect with teachers in a smaller setting with a focus on college and career readiness, character education, social-emotional learning and future planning. Students have the opportunity to work with their teachers and same gender peers to develop life-long skills that will ready them for their post-high school plans.

The Learning Center
The Learning Center (TLC) is a place where students can come for extra help. Students are assigned to TLC during their study hall or after school if they are failing two or more classes on their report card. Students can also be referred to TLC by a teacher or parent. Other students can request to attend TLC because it is a quiet, supportive learning environment. Students can receive academic support from the TLC teacher or student tutors. Homework help, organizational assistance, test preparation, materials, and grade monitoring are provided in TLC.

Response to Intervention
Many students will see success in the classroom without additional support being needed; however, some may require some additional interventions. The Response to Intervention process is in place for a faculty member to refer a student for a higher level of behavioral or academic support. A team of support staff and classroom teachers meet to discuss reported concerns and develop additional support plans outside of the regular classroom instruction. The goal of this process is to ensure that appropriate academic and/or behavioral interventions have been implemented and monitored so as to promote student success.

Advanced Placement and College Coursework
Advanced Placement (AP) course offerings include English Literature and Composition, Biology, Calculus AB, Chemistry, Physics 1, Psychology, Environmental Science, 2D Art and Design, and Drawing. College credit is available in Physics from the University at Albany and in Environmental Science from Syracuse University. Hudson Valley Community College offers yearly classes in Music Appreciation, Journalism, Communications, Pre-Calculus, Calculus, Interpretations of American History and Spanish to HFCSD students.

www.collegeboard.com
www.hvcc.edu
www.syrcause.edu
www.albany.edu
**SUPPORTIVE & ALTERNATE PROGRAM OPTIONS AT HOOSICK FALLS**

At Hoosick Falls High School a variety of additional programs are offered to meet individual student needs. These programs are run both at our school and off-campus. Students are provided with qualified teachers and staff and supported in their programs that ultimately lead to a New York State high school diploma or its equivalent.

**Restore U**
Is an on-campus academic respite program for grades 7-12. Support is provided in a small group setting. Academic skill building is developed through a modified curriculum, ensuring all students academic needs are met and back credits are earned as needed. Students enrolled in the Restore U program will attend all their core courses (Math, Science, English, Social Studies) in a small group setting. Entrance to the program is based on student academic need and established through teacher, counselor and administrative recommendations.

**PATH**
Mission: The PATH will offer a unique learning program that is flexible in order to accommodate students to earn their diploma. It will provide a climate that emphasizes commitment, participation, caring, trust, and respect to all students. The PATH will foster student responsibility and students will be held accountable for their success.

Program Goal: The primary goal of the PATH is to enable the disinterested or disconnected student to complete their high school education in a flexible and nurturing setting. The expectation of the PATH staff is that ALL students will receive a High School Diploma.

Guidelines for admission consideration to the PATH are established in order to assist the Student Service Team and staff members in selecting the most appropriate students for the PATH Program. Utilization of these guidelines, along with established admissions criteria, will ensure that students referred to the program have the best possible opportunity to succeed in the alternate setting.

**TASC Test Assessing Secondary Completion**
Formerly known as GED, the TASC Program provides students who have reached maximum compulsory school age (16) the opportunity to achieve a High School Equivalency Diploma. A determination from the High School Administration and Counseling Department, along with the approval of the Superintendent are required for this option.

**Career Development Center**
The Southwest Vermont Career Development Center is located in Bennington, Vermont, and serves many high schools regionally in New York, Vermont and Massachusetts. The SVCDC is a committed career and technical school that prepares secondary and post secondary students in a variety of different trades with hands on technical learning. Students from Hoosick Falls CSD are invited to apply in the spring of their sophomore year of high school if they are on track to graduate academically, and have good discipline and attendance records. Students who are interested will attend a field trip to the SVCDC to explore their programs of interest, and also interview with the staff at the school. If chosen, they will then be a part of a two year technical program of their choice in their junior and senior year. Hoosick Falls students will attend HFCS for half of the day in the morning or the afternoon to take their core classes needed for a New York state diploma, and then will take their technical program courses at the SVCDC the other half of the day. Students will be provided transportation from HFCS to the SVCDC. Currently, the SVCDC offers twenty different technical programs from nursing, to video production, to forestry, to human services, and more. Please see the link below for further information on specific program offerings, and descriptions.

ENGLISH LANGUAGE ARTS

English 9: Literary Analysis and Composition I
Grade 9
40 Weeks (full year) 1 Credit (Required)

This is the first of three courses that will prepare students for the Grade 11 ELA Common Core Regents. This introductory course focuses on fictional and non-fictional stories, poetry, and plays, while also enhancing research skills through the completion of a research paper. Students will learn to organize and compose argument essays, newspaper articles, and analyze how literary elements are used to advance the central ideas of a story.

Students will study contemporary literature by Jeannette Walls, as well as war stories from Tim O’Brien. Students will also read classic dramas written by Lorraine Hansberry and William Shakespeare. This course is centered on the ideas of “struggle”, “perserverance” and “coming of age”.

English 10: Literary Analysis and Composition II
Grade 10
40 Weeks (full year) 1 Credit (Required)

This is the second of three courses that will prepare students for the Grade 11 English Language Arts Common Core Regents. This intermediate course focuses on fiction and nonfiction selections, poetry, and plays, while also enhancing research skills through the completion of a research paper. Students will build on literary critique and analysis skills while improving grammar, spelling and other composition skills.

Reading material will include, but is not limited to: short stories, novels, plays, novellas, nonfiction articles and essays. Literature will include works by the following authors: Dahl, Jackson, Hemingway, Faulkner, Steinbeck, Bradbury, Shakespeare, McCarthy, Joyce and Porter.

English 11: Literary Analysis and Composition III
Grade 11
40 Weeks (full year) 1 Credit (Required)

This is the final course that will prepare students for the Grade 11 ELA Common Core Regents. This challenging course focuses on fictional and non-fictional stories, poetry, and plays, while also enhancing research skills through the completion of a research paper. Students will build on their learning from 9th and 10th grades to further develop argument essays, newspaper articles, and critically analyze how literary elements are used to advance the central ideas of a story.

Students will study major American authors of the 19th, 20th, and 21st centuries including Arthur Miller, Margaret Atwood, Ken Kasey and Stephen King.

English 12: Critical Analysis of Literature & Writing
Grade 12
40 Weeks (full year) 1 Credit (Required)

This course will build upon the language skills students already possess and venture further into literature, expression, analysis, and persuasion. Following a theme of subjective reality through the use of seminal classic and contemporary works of literature (i.e. Hamlet, Poe, Kesey) students will use literature and writing to further an understanding of how their individual interactions with the world shape their understanding with it. The course will include literature, contemporary novels, drama, editorial reading and writing, grammar, the short story, allegory, and much more.

* High school seniors may take AP English Literature and Composition in place of English 12: Critical Analysis of Literature

AP English Literature & Composition
Grade 12
40 Weeks (full year) 1 Credit - Weight 1.1%
Pre-Requisites: Comprehensive English II Midterm of 85 or higher or a Common Core Regents score of 90 or higher and successfully complete summer work.
Related Assessments: AP Examination

This class is a Advanced Placement, college level survey of major British and American authors. The course includes the study of Thomas Hardy, James Joyce, William Shakespeare, Mary Shelley, George Orwell, William Faulkner, John Steinbeck, Ernest Hemingway, Toni Morrison, and other representable authors of the 19th and 20th centuries. Also, it will prepare students to succeed on the AP Literature exam.
Communication (ENGL 120)
Grade 12
20 weeks (half year) ½ credit (3 HVCC credits*)
*Prerequisite: English 11: Literary Analysis and Composition III

This course is designed to introduce the student to the principles and psychology involved in interpersonal and group communication. The program enables the student to express ideas effectively to the public on a personal and professional basis in both the written and oral processes of communication.

*Students may register with Hudson Valley Community College to be eligible to receive up to three undergraduate credits at a reduced tuition through the College in the High School Program.

Journalism I (ENGL 130)
Grade 12
20 weeks (half year) ½ credit (3 HVCC credits*)
*Prerequisite: English 11: Literary Analysis and Composition III

This course is designed to introduce the students to the study of journalism. The goal of this program is to integrate the key principles of journalism into everyday research, allowing the students to evaluate issues and make sound decisions that will impact the society in which they live.

*Students may register with Hudson Valley Community College to be eligible to receive up to three undergraduate credits at a reduced tuition through the College in the High School Program.

CAREER SPOTLIGHT

Here are some careers you can enter with a degree in English:

- Academic librarian
- Advertising account executive
- Advertising copywriter
- Arts administrator
- Information officer
- Marketing executive
- Public relations officer
- Records manager
Health and Wellness  
Grade 10  
40 Weeks (every other day) ½ credit  
Prerequisites: None

Health Education is a required course provided to all High School students in tenth grade. The goal of the program is to have students apply the knowledge they have gained over the course of their education toward living a healthy lifestyle, and to empower them to use the skills they have learned to make informed decisions. The curriculum encompasses seven developmental personal and social skills which when mastered, enable students to enhance personal, family and community health and safety. These skills include self-management, relationship management, stress management, communication, decision making, planning and goal setting, and advocacy. Class discussions, group projects, media, technology and a variety of other methods may be used to convey information.

*Upon completion, this course fulfills the Health requirement for graduation.

Yoga  
Grades 9-12 (based on seniority)  
40 Weeks (every other day) ½ credit  
Prerequisites: None

This elective will introduce students to the fundamental components of asana (movement exercises/poses) and pranayama (breathing exercises). Students will learn how to use balancing and stretching techniques to assist with healthy living, sports, flexibility, pains, and/or stress relief. No prior experience needed.

Lifetime Fitness & Wellness  
Grades 11-12  
40 Weeks (every other day) ½ credit  
Prerequisites: None

This curriculum should be based on the American College of Sports Medicine’s recommendations for a long and healthy life. It will cover: definition of physical fitness, wellness, benefits of being fit, identification of barriers to being physically active, intervention strategies to help lessen barriers to physical activity. It will also measure SMART goals: Specific, Measureable, Action-Based, Realistic, Timely. It will also cover five components of physical fitness (body composition, flexibility, cardiovascular endurance, muscular endurance and strength). A variety of other topics will also be included.

Physical Education  
Grades 7 - 12  
40 Weeks (every other day) ½ credit  
Prerequisites: None

Physical Education in grades 7-12 focuses on personal health with an emphasis on health-related fitness. The curriculum will focus on exercise, cardiovascular fitness, body composition, strength, endurance, and flexibility. Students engage in fitness activities based on their fitness level. A variety of fitness, skills, individual, and team activities are utilized to promote the development of lifetime fitness skills. Sports offered in the district will be included as units in addition to different sports from around the world. The course directly addresses emotional-social development due to the uniqueness of the interactions and the teamwork required to succeed as a group.

For Physical Education class: Each student must have sneakers (cleats are OK for outdoor activities), shorts, and a T-shirt. Sweatshirts and sweatpants are also permitted.

Strength and Conditioning  
Grades 9-12  
40 Weeks 1 credit  
Prerequisites: Permission of the Instructor

This course introduces the fundamental skills of weight training for personal fitness and athletic development through hands-on experience, participation, and guidance. Emphasis will be placed on proper techniques, training programs, and the overall benefit of weight training. Attendance is required of each student to successfully gain the knowledge and benefits of this class. This class fulfills the yearly requirement for Physical Education.

Adaptive Health & Wellness  
Adaptive Physical Education  
Grades 7-12  
40 Weeks, 1 credit

An Adaptive Health and Wellness course and an Adaptive Physical Education course is offered for students who qualify under their Individualized Education Plan (IEP) and are unable to participate in the regular Health and Wellness and Physical Education classes. Curriculum is modified and tailored to meet their needs. Behavior plans are supported.
Algebra 1A
Grade 9
40 weeks, 1 credit
Prerequisites: Teacher Recommendation, NYS CC Math 8 Exam Score Level 1 or 2

This is the first of a two-year sequence in algebra preparing students to take the Common Core Algebra 1 Regents Exam. The students will study the foundations of algebra; equations, inequalities, functions, linear functions, and systems of equations and inequalities. Other topics include factoring polynomials and the quadratic functions and equations.
Related Assessments: Local Final Examination

Algebra 1B
Grade 10
40 weeks, 1 credit
Prerequisites: Algebra 1A

This is the second of a two-year sequence in algebra preparing students to take the Common Core Algebra 1 Regents Exam. As a continuation of Algebra 1A, the students will study polynomials, factoring polynomials, quadratic functions and equations, data analysis and probability, exponential and radical functions, rational functions and equations.
Related Assessment: NYS Common Core Algebra 1 Regents Examination

Algebra I
Grade 9
40 weeks, 1 credit
Prerequisites: 8th grade Math

This course fulfills the minimum mathematics requirement for graduation and to attain a Regents Diploma. It is also the first in a three-course math sequence leading to an Advanced Regents Diploma. Topics include the study of linear, quadratic, absolute value, rational, exponential and radical functions, as well as simplifying expressions, solving equations, solving systems of equations, and data analysis and probability.
Related Assessments: NYS Common Core Algebra 1 Regents Examination

Introduction to Geometry
Grades 10-11
40 weeks, 1 credit
Prerequisites: Teacher recommendation, AND Algebra 1 or Algebra 1B.

This is a teacher recommended prep course to prepare students for Regents Geometry. It combines algebra and basic geometry skills needed to be successful in Common Core Geometry. Topics will include, but not limited to, solving equations, proportions, factoring, property of polygons, angle relationships, and transformations.
Related Assessment: Local Final Examination

Math in Society
Grade 11
40 weeks, 1 credit
Prerequisites: Teacher recommendation, Algebra 1B or Introduction to Geometry.

This is a non-regents real world course that fulfills a third year graduation requirement. It will focus on math concepts used in the real world. Topics will include, but not limited to, banking, percent, measurements, volume, area, surface area, and perimeter.
Related Assessment: Local Final Examination

Geometry
Grades 9-11
40 weeks, 1 credit
Prerequisites: CC Algebra 1 Regents; Course Average 75+

This is the second in the three-course sequence leading to an Advanced Regents Diploma. The curriculum emphasizes an abstract, formal approach to the study of geometry, and includes topics such as properties of plane and solid figures; deductive methods of reasoning and use of logic; geometry as an axiomatic system including the study of postulates, theorems, and formal proofs; concepts of congruence, similarity, parallelism, perpendicularity, and proportion; rules of angle measurement in triangles; properties and attributes of triangles, polygons and quadrilaterals; similarity and trigonometry; extending perimeter, circumference, area, spatial reasoning; properties and attributes of segments in circles; and extending transformational geometry. Logical reasoning and proof are a major focus. Proofs will include but are not limited to, 2 column, paragraph, transformational, coordinate, rigid motion and algebraic proof.
Related Assessment: NYS Common Core Geometry Regents Examination
Business Math
Grades 11-12
40 weeks, 1 credit

Business math is not just about the numbers or the ability to tally difficult equations correctly. This class prepares students to think logically and critically about finances, both for the home and in their professional life. Taking the time to complete a math class can benefit a student far beyond the lessons learned in the classroom. Topics for this class include gross and net pay, money management, borrowing, earning power, investing, financial services, and insurance.

Intermediate Algebra
Grades 11-12
40 weeks, 1 credit

Prerequisites: Common Core Geometry or Topics of Geometry

This class fulfills the third year mathematics requirement for graduation while intending to prepare students for college math courses. The students will study rational expressions, the real numbers, geometry of the circle, and the complex numbers. Additional topics include trigonometric functions, trigonometric graphs, exponential and logarithmic functions.

Related Assessment: Local Final examination

Algebra II
Grades 10-12
40 weeks, 1 credit

Prerequisites: CC Geometry Regents; Course average 75+

The last year in a three-year math sequence leading to an Advanced Regents Diploma. This course includes field properties and theorems; set theory; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear and quadratic equations and inequalities; solving systems of linear and quadratic equations; graphing of constant, linear, and quadratic equations; properties of higher degree equations; operations with rational and irrational exponents; exponential and logarithmic functions; conic sections; probability and statistics; sequences and series; trigonometric functions, graphs and identities.

Related Assessments: NYS Common Core Algebra 2 Regents Examination

High School Pre-Calculus
Grade 12
40 weeks, 1 credit

This course is aligned to the Common Core Learning Standards and continues to build higher level math skills connecting Algebra and Geometry with Trigonometry and Topics in Precalculus. This class will further develop the algebraic and geometric techniques that will be required of those students that continue their study of mathematics. Inverse functions are explored as students study the relationship between exponential and logarithmic functions and restrict the domain of the trigonometric functions to allow for their inverses. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

HVCC Precalculus (MATH 170)
Grades 11-12
20 weeks (Fall), ½ credit (4 college credits)

Prerequisites: HVCC Math 150 Or NYS Common Core Algebra 2 Regents grade 75+

The course includes topics from analytical geometry, and analysis. It explores the study of algebraic and transcendental functions and their graphs, complex numbers, DeMoivre’s Theorem, and applications of these concepts.

Related Assessments: HVCC Final Examination
NOTE: A graphing calculator is required.

Students may register with HVCC to be eligible to receive up to four undergraduate credits at a reduced tuition through the College in the High School Program.
HVCC Calculus I (MATH 180)  
Grades 11-12  
20 weeks (Spring only), 1 credit (4 college credits)  
Prerequisites: HVCC Math 170  

Topics covered include but are not limited to: limits, continuity, differentiation and integration of elementary functions (including transcendental), with applications to curve sketching, optimization problems, related rates, area under a curve problems, and solutions to elementary differential equations.  
Related Assessments: HVCC Final Examination  

**NOTE: A graphing calculator is required**  

*Students may register with HVCC to be eligible to receive up to four undergraduate credits at a reduced tuition through the College in the High School Program.*

AP Calculus AB  
Grades 11-12  
40 weeks, 1 credit - Weight 1.1%  
Prerequisites: Math 160 Precalculus and Math 180 Calculus I - or equivalent. AP application, teacher recommendation, a Regents exam score of 90 or better on Common Core Algebra 2, completed summer assignments  

Students enrolled in this course will take the Advanced Placement Calculus AB exam in May. This Advanced Placement course is equivalent to a first year college course in single variable calculus. Topics of study will include limits and continuity, derivatives, integrals, infinite sequences and series. Students will examine major concepts through investigations employing the rule of four; graphically, numerically, algebraically and verbally. All students are equipped with a TI-84+ graphing calculator which is used daily. This is a rigorous course that requires the time and dedication of both the students and the instructor.  
Related Assessments: College Board AP Calculus AB Examination, Local Final  

CAREER SPOTLIGHT  
Here are some careers you can enter with a degree in Mathematics:  
- Actuary  
- Logistician  
- Market Research Analyst  
- Accounting  
- Account Management  
- Risk Management  
- Computer Science  
- Information Technology  
- Aerospace  
- Engineering  
- Teaching
Concert Band
Grades 8-12
40 weeks, ½ credit
Prerequisites: 9-12 Graders (8th grader: By audition/permission of instructor only)

Concert Band is the third of four instrumental groups in the Grades 5-12 band program and offers many options. Primarily, it is ideal for a Freshman and Sophomore as they continue to develop their musical abilities. In addition, Juniors and Seniors may either continue on their primary instrument or learn a secondary instrument (see instructor for details and availability of instruments). Concert Band is also ideal for the beginning high school instrumental student. Students in Grade 7 who finish Junior Band at a high level can be promoted to Concert Band in Grade 8 with permission of the instructor. Concert requirements include the three annual concerts (Winter, Spring, and Pops) and the National Junior Honor Society induction ceremony, and the group may travel to the NYSSMA Major Organization Festival. Individual students may also participate in the NYSSMA Solo Festival. Difficulty of band music will be at the intermediate NYSSMA levels: 2 and 3.

Symphonic Band
Grades 9-12
40 weeks, 1 credit
Prerequisites: Junior and Seniors must have a minimum 2 years of Junior and/or Concert Band. Students in Grades 8-10 with permission from instructor only.

Symphonic Band represents the highest level of instrumental performance at HFCS. Through daily rehearsals and a weekly lesson Symphonic Band members work to improve their musical studies and abilities. Concert requirements include the three annual concerts (Winter, Spring, and Pops), the NHS induction ceremony, and two parades (St. Patrick’s Day and Memorial Day), and the group may travel to additional performances, including the NYSSMA Major Organization Festival. Difficulty of band music will be at the advanced NYSSMA Levels: 4, 5, and 6. Individually, students may also participate in the NYSSMA Solo Festival.

Senior Chorus
Grades 9-12
40 weeks, 1 credit
Prerequisites: An ability to sing on pitch

Senior Chorus is open to all students from grades 9th-12th. There will be a basic audition to listen for singing on pitch. Students learn the principles of good breathing, posture and articulation in singing, through exercises and vocal warm-ups. Our music genres include American folk songs, classical European repertoire, Popular music, Rock, and Non-Western songs. Participation in school concerts is part of the grading process throughout the year. Based on their vocal ability, an audition and needs of the chorus as a whole, selected students will participate in outside events, such as New York State School Musical Association (NYSSMA).

Jazz Band
Grades 9-12
40 weeks, ½ credit
Prerequisites: Selection via audition and/or interview with instructor

In Jazz Band, students will perform music from various styles including swing, blues, Latin jazz, rock, funk, and brass band. Jazz band will be offered as an after-school course; days and times to be determined on a yearly basis. Performances include local concerts and festivals throughout the school year. Basic proficiency on instrument is required. Attendance in after school rehearsals required.
Music Theory I
Grades 9-12
40 weeks, 1 credit
Prerequisites: None

This course covers notational skills, musical terminology and aural skills:
Notational Skills
- Rhythms and meters
- Clefs and pitches
- Key signatures, scales and modes
- Intervals and chords
- Melodic transposition
Musical Terminology
- Terms for intervals, triads, seventh chords, scales and modes
- Terms pertaining to rhythm and meter, melodic construction and variation, harmonic function, cadences and phrase structure, texture, small forms, and musical performance
Aural Skills
- Rhythmic dictation (simple and compound meters)

Music Theory II
Grades 10-12
40 weeks, 1 credit
Prerequisites: Music Theory I

This course covers similar topics to Music Theory I in more depth.

Music Appreciation I (MUSC 100)
Grades 11-12
20 weeks (Fall only), ½ credit (3 college credits)
Prerequisites: None

This course is designed to provide the college student with the knowledge and experience necessary in developing the art of listening intelligently and perceptively to various types and styles of music heard today, and to increase one’s enjoyment and appreciation of music in general. Emphasis will be placed on the music of the middle Ages (450-1450); the Renaissance (1450-1600); and the Baroque Period (1600-1750). This course will begin with several lectures on the elements of music and musical instruments and end with a study of the American Musical and non western music. Students will be required to attend four concerts of different types and to write a review of each.

Music Appreciation II (MUSC 101)
Grades 11-12
20 weeks (Spring only), ½ credit (3 college credits)
Prerequisites: Music Appreciation I

This course is designed to provide the college student a continuation of Music Appreciation I with focus of study on the music of the Viennese Classical Period (1750-1825); the Romantic Age (1825-1900); and twentieth century music (including jazz, rock, popular, and folk music). The course will begin with several lectures reviewing the characteristics of sound and the elements of music.

PERFORMING ARTS

*CStudents may register with Hudson Valley Community College to be eligible to receive up to three undergraduate credits at a reduced tuition through the College in the High School Program.

CAREER SPOTLIGHT

Here are some careers you can enter with a degree in the Performing Arts:

- Accompanist
- Artist management
- Audio production
- Choral director
- Composer
- Conductor
- Copyist, transcriber
- Copyright consultant
- Cruise ship entertainer
- Entertainment lawyer
- Film scoring
- Lyricist
- Music agent
- Music critic or reviewer
- Music therapist
- Music instrument repair and tuning
- Performer
- Production
- Recording (producer, engineer)
- Songwriter

*CStudents may register with Hudson Valley Community College to be eligible to receive up to three undergraduate credits at a reduced tuition through the College in the High School Program.
SCIENCE

Regents Living Environment (Biology)
Grade 9 (8th grade accelerated)
40 weeks, 1 Credit, Lab Requirement
Corequisite: Attached lab every other day

This course prepares students for the New York State Regents Living Environment exam and provides students with a basic understanding of biological processes and environments. Topics to be discussed include unity and diversity in living things, maintenance in living things, human physiology, reproduction and development, genetics, evolution, ecology, and development of biological laboratory skills. Students are provided with an opportunity to understand and apply scientific concepts, principles, and theories pertaining to biology and its historical development. In addition, students will use mathematical analysis, scientific inquiry, problem solving, and research in order to understand and apply the themes that connect mathematics, science, and technology and to solve real-life problems. Students will be expected to explain, analyze, and interpret the processes and natural phenomena of biology. This course counts toward achieving a Regents Diploma upon satisfactory completion of both the course and Regents exam.

*Successful completion of 1,200 minutes of laboratory time, including four New York State mandated labs, is a requirement for admittance to the Regents Exam

Regents Physical Setting: Earth Science
Grade 10 (9th grade accelerated)
40 weeks, 1 Credit, Lab Requirement
Corequisite: Attached lab every other day

The Regents Physical Setting/Earth Science course of study is designed to encourage students to understand the processes of change in earth and space through first-hand observation and inference. Through various units, including Rocks and Minerals, Earthquakes, Landscapes, Geological History, Meteorology and Astronomy, emphasis is placed on scientific inquiry an analysis of data relevant to the New York State Learning Standards. Students will be taught to formulate questions that relate to their experiences, and to use their acquired skills to investigate these questions. Throughout the year, timely environmental issues such as global warming and environmental pollution will be explored, with an emphasis on how we interact with the planet Earth, and our responsibility to understand and value our natural environment.

*Successful completion of 1,200 minutes of laboratory time is a

Regents Physical Setting: Chemistry
Grades 11 (10th grade accelerated)
40 weeks (full year) 1 Credit, Lab Requirement
Prerequisites: Regents Biology 75 average, Regents Earth Science 75 average, Algebra 75 average 75 Regents, Geometry 75 average 75 Regents
Corequisite: Attached lab every other day; Algebra II or higher

Regents Chemistry is a course dealing with the fundamental relationships between matter and energy and the changes which matter undergoes. Topics include atomic structure, chemical bonding, stoichiometry kinetics, equilibrium, acid-base theory, oxidation-reduction and organic reactions.

*Successful completion of 1,200 minutes of laboratory time is a requirement for admittance to the Regents Exam

Regents Physical Setting: Physics
Grades 11-12
40 weeks, 1 Credit, Lab Requirement
Prerequisites: 2 years of high school science
Corequisite: Attached lab every other day

Students who take this course will develop a conceptual understanding of physics principles, apply these principles through laboratory experiments to solve real-world problems, perform group design and construction activities that illustrate specific physics principles in action, and observe physics at work through demonstrations, data collection and data analysis. Topics covered include forces, linear motion, harmonic motion, circular motion, momentum, conservation laws, waves, sound, fluids, thermodynamics, electricity, magnetism, and optics.

This is a project based class; each of the projects will be used to introduce relevant topics in physics that apply to the project at hand. Over the course of the year we will see how physics principles are used in driving and car safety, amusement park rides, sports, electrical systems, the entertainment industry, and other areas.

*Successful completion of 1,200 minutes of laboratory time is a requirement for admittance to the Regents Exam

AP General Physics I: (APHY 105 and APHY 106)
Grades 11-12
40 weeks, 1 credit (4 college credits)
Prerequisites: 3 years of high school math, a Junior or Senior
with at least a B average (3.00 cumulative) for all previous high school work, strong work ethic, completed summer reading assignment, and an application for admittance to the course during the course selection process in the spring or obtain the instructor’s permission to register for the course before September 15.

Corequisite: Attached lab every other day; registration for University in the High School courses at SUNY Albany; tuition and fees for both APHY105 & APHY106

This course is offered by the University in the High School program through SUNY Albany. It is equivalent to a college level Physics I (APHY 105) with an associated Physics I Lab (APHY 106). Students who take this course will develop a conceptual understanding of physics principles, apply these principles through laboratory experiments to solve real-world problems, perform group design and construction activities that illustrate specific physics principles in action, and observe physics at work through demonstrations, data collection and data analysis. Topics covered include vectors, kinematics, dynamics, statics, harmonic motion, circular motion, waves, sound, fluids, thermodynamics, electricity, magnetism, and modern physics.

Students will be required to take the NY State Regents Exam/Physical Setting: Physics in addition to a separate final exam for SUNY Albany credit. Students may register with SUNY Albany to be eligible to receive up to four undergraduate credits through the University in the High School Program and may also sit for the AP Physics (Algebra Based) exam.

*Successful completion of 1,200 minutes of laboratory time is a requirement for admittance to the Regents Exam

**AP Biology**
Grades 11-12
40 weeks, 1 Credit, Lab Requirement

Prerequisites: Students should have successfully completed NYS Regents Living Environment with a minimum course average of 90 and NYS Regents Physical Setting/Chemistry with a minimum course average of 85. Students should also have earned a minimum of a 75 in NYS Regents Algebra as a course average and on the regents exam.

Co-Requisites: Students should be concurrently enrolled in college pre-calculus and calculus or AP Calculus AB

The Advanced Placement Biology course is equivalent to a two-semester college introductory biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions.

This course requires that 25% of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices.

**AP Environmental Science / SUNY Environmental Science & Forestry - Global Environment (EFB120)**
Grades 11-12
40 weeks, 1 credit (3 college credits), Lab requirement

Prerequisites: Successful completion of Regents Living Environment, Regents Physical Setting/Earth Science, and Regents Physical Setting/Chemistry (or taking concurrently)

The Advanced Placement Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science. The goal of this course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, explore the linkages between local, rural, urban and suburban communities and the larger global ecosystem, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them.

*Students may earn three college credits from SUNY Environmental Science and Forestry and are required to take the Advanced Placement Environmental Science exam

**AP Chemistry**
Grades 11-12
40 weeks, 1 credit (3 college credits), Lab requirement

AP Chemistry is an introductory first year, college-level chemistry course. Students cultivate their understanding of chemistry through inquiry-based lab investigations as they explore the four Big Ideas: scale, proportion and quantity, structure and properties of substances, transformations and energy.

Prerequisites: Students should have successfully completed Regents Chemistry and Algebra II.

Lab requirement: This course requires that 25% of instructional time engages students in lab investigations. This includes a minimum of 16 hands-on labs (at least six of which are inquiry-based). It is recommended that students keep a lab notebook throughout.
Forensic Science  
Grades 11-12  
40 weeks, 1 credit  
Prerequisites: Two years of high school science  

Forensic science is an upper-level course rich in exploration and lab investigation which applies many disciplines of scientific study such as biology/anatomy, chemistry, and physics to solving crimes.

Nanotechnology  
Grades 11-12  
40 Weeks (Odd years), 1 credit  
Prerequisites: Minimum average of 75 in Regents Living Environment, Regents Physical Setting/Earth Science, and Regents Algebra I  

Nanotechnology is an emerging area that engages almost every technical discipline – from chemistry to computer science – in the study and application of extremely tiny materials. This course allows any technically savvy person to go one layer beyond the surface of this broad topic to see the real substance behind the very small. It is defined as the manipulation of matter at the molecular scale and is allowing us to develop new materials and devices that have unique properties beyond the realm of current conventional technology. The potential economic effects are profound as it is one of the fastest growing, and heavily funded, technological fields across the globe.

Anatomy and Physiology  
Grades 11-12  
40 Weeks, 1 credit  
Prerequisites: Two years of high school science  

This course gives a basic overview of anatomy and physiology that is not covered in other courses. Students will begin to integrate the knowledge gained about anatomy to support explanations of physiological phenomenon. The course is broken down by the various systems of the human body. Some systems include the integumentary, skeletal, muscular, digestive, circulatory, as well as others. The course is geared towards a college based setting by heavily relying on students to take notes themselves.

Marine Science  
Grades 11-12  
40 weeks (even years), 1 credit  
Prerequisites: Two years of high school science  

A course in marine biology focusing on physical, biological, and social aspects of the marine environment. Topics include oceanography, ecology, physiology, behavior, conservation, fisheries, exploration, and activism.

Ecology  
Grades 11-12  
20 Weeks (every day - odd years), ½ credit  
Prerequisites: Successful completion of both Living Environment and Earth Science  

Through the processes of reading, laboratory work, class discussion, visual aids, outdoor activities, and lecture students will study ecology. Areas of focus include nonliving elements of the environment, animal behavior, interactions between members of the same species, interactions between members of different species, succession, biomes, biochemical cycles, and current environmental problems.

Natural Disasters  
Grades 11-12  
20 Weeks (every day - even years), ½ credit  
Prerequisites: Two years of high school science  

This course would study natural disasters across the world, including weather and geology related disasters, and their impact on humans, as well as how to be prepared for them. It would include social studies and environmental science concepts.
Applied Physics
Grades 11-12
20 Weeks (every day - odd years), ½ credit
Prerequisites: Two years of high school science

This is an elective science course to be taken as an alternative to Regents Physical Setting/Chemistry and/or Regents Physical Setting/Physics. It covers many of the same topics as Regents Physical Setting/Physics, but is less dependent on math skills and concentrates more on concepts. Hands-on laboratory work is a major component of the course.

Geology of National Parks
Grades 11-12
20 Weeks (every day - even years), ½ credit
Prerequisites: Two years of high school science

The course focuses on the geology of national parks to help students become better-informed citizens on topics that may affect them in the future (groundwater pollution, biodiversity, volcanic hazards, etc.) The topics demonstrate what is and is not believable about science, those subjects on which scientists are usually correct and those on which scientists have no special expertise. The intent is to give students enough geological background that they will be inspired to visit more of the national parks and study their geology/history.

Meteorology
Grades 11-12
20 Weeks (every day - odd years), ½ credit
Prerequisites: Two years of high school science

This course will cover the basic physical processes of the atmosphere as they produce and are related to weather phenomena. These will include weather elements, condensation and precipitation, air masses, fronts, winds, circulation systems, severe storms, interpreting weather maps, and regular discussion of current weather events, including an introduction to climate change. Students will engage in group and individual in-class activities, group laboratory experiences, and are expected to actively pursue the overall goal of becoming more science literate.

Astronomy
Grades 11-12
20 Weeks (every day - odd years), ½ credit
Prerequisites: Two years of high school science

Astronomy involves the study of the planets and other objects that make up the solar system including stars, constellations and galaxies beyond the limits of our own solar system. Scientific concepts of the universe will be discussed and researched.

Genetics
Grades 11-12
20 Weeks (every day - even years), ½ credit

Genetics is a technical, hands-on course which involves studying the mechanisms of inheritance. At the beginning of the course, Mendelian inheritance patterns will be investigated in the lab by performing crosses using fruit flies and analyzing the offspring’s traits. Non-Mendelian inheritance patterns will also be investigated in the lab using plants. The second half of the course will focus on molecular genetics and biotechnology where students will be conducting labs on genetic transformation, DNA fingerprinting, modeling bacterial plasmids, separation of proteins, and PCR.

Zoology
Grades 11-12
20 Weeks (every day - even years), ½ credit

Zoology is a lab based course in which students will discover the characteristics of animals. Topics include comparing and contrasting animal body plans and levels of animal complexity, studying the types of reproduction and patterns of development in invertebrates and vertebrates, discovering how the organization of the animal kingdom into various phyla and classes of animals was/is developed/ing, and the basics of animal behavior.

*Hands on dissection of preserved specimens is required for this course. Dissections include sponge, starfish, segmented worm, grasshopper, crayfish, clam, squid, frog, fish (perch), fetal pig.
Global History & Geography I
Grade 9
40 weeks, 1 Credit

This is the first half of a two-year course organized chronologically to study all areas of the world with the exception of the United States. This course covers a variety of units including the development of cultures from prehistoric times, the Ancient World (4000 B.C.E. to 500 C.E.); expanding zones of exchange and encounter (500 C.E. to 1200 C.E.); and global interactions (1200 C.E. to 1750 C.E.). During this course there will be a special focus on the acquisition of a more sophisticated level of reading and writing skills.

* The Global History and Geography Regents examination is not given until the end of second year of this course - Grade 10

Global History & Geography II
Grade 10
40 weeks (full year) 1 Credit
Prerequisite: Global History and Geography I

This is the second half of a two-year course organized chronologically to study all areas of the world with the exception of the United States. This course continues with the study of the world throughout the 19th and 20th centuries. This course of study includes examination of the nine themes of social studies: Continuity and Change, Geography and History, Political and Social Systems, Religious and Value Systems, Economics and Technology, Diversity, Impact of the Individual, Global Interaction, Art and Literature. Special focus is on the acquisition of a more sophisticated level of reading and writing skills.

* The Regents Global History and Geography examination, which covers the content of both Global History and Geography 1 and 2, will be administered at the end of this course.

United States History & Government
Grade 11
40 weeks, 1 Credit
Prerequisites: Global History & Geography I & II

This is a survey history course covering the birth of Colonial American through the era of modern globalization. The course will focus on constitutional issues that have challenged the developing nation, such as due process rights, the authority of the federal government, the power of the presidency, nationalism, sectionalism, civil war, civil rights, women’s rights, government control over the economy, interdependence, globalization and terrorism. The course is based on critically reading and comprehending historical documents in order to analyze the impacts of historic events and government policies on the direction of the nation, all of which are critical skills for passing the NYS Regents exam in June.

Participation in Government
Grade 12
20 weeks, 1/2 Credit
Prerequisites: Regents United States History, Government and Geography examination

In this class students will study and analyze the importance of federal and local government as well as public policy. Students will analyze parties and their platforms; comparing and contrasting their different viewpoints. Students will also be required to complete 15 hours of mandatory community service hours and attend three meetings, two town or village and one school board. These hours and meetings will need to be documented. This requirement will be fulfilled over the course of government and economics.

Economics
Grade 12
20 weeks, 1/2 Credit
Prerequisites: Regents United States History, Government and Geography examination

In this class students will study the basic principles of economics as well as the three main types of economies; specifically how capitalism impacts the United States. Students will also analyze how the government influences a society’s economy. Students will also be required to complete 15 hours of mandatory community service hours and attend three meetings, two town or village and one school board. These hours and meetings will need to be documented. This requirement will be fulfilled over the course of government and economics.

AP Psychology
Grades 11 - 12
40 weeks, 1 credit - Weight 1.1%
Prerequisites: Junior or Senior status; completed summer assignments

This Advanced Placement class is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological
facts, principles, and phenomena associated with each
of the major subfields within psychology. They also learn
about the ethics and methods psychologists use in their
science and practice. Advanced Placement Psychology is
a challenging course that is equivalent to an introductory
college course in psychology. Solid reading and writing
skills, along with a willingness to devote considerable
time to homework and study, are necessary to succeed.
Students are expected to take the associated College
Board Advanced Placement examination in May.

AP Human Geography
Grades 12
40 weeks, 1 credit - Weight 1.1%
Prerequisites: Junior or Senior status

Advanced Placement Human Geography is designed for
the highly motivated student and is the equivalent of a
college entry level course. College level textbooks, read-
ings and resources will be used. Students will explore
how humans have understood, used, and changed the
surface of Earth. Students will use the tools and thinking
processes of geographers to examine patterns of human
population, migration, and land use. Students will learn
about the tools and methods geographers use, how cul-
ture has spread and how it has affected political organi-
zation, we will focus on farming practices throughout the
world and the impacts of urbanization and industrializa-
tion. Students will take the AP exam in May to potentially
receive college credit.

The World at War
Grades 11-12
40 weeks, 1 Credit
Prerequisites: Junior or Senior status; successful completion of
the Global History and Geography Regents

This is a full year course designed to enhance the study
of World War I, World War II and the Holocaust. The
World at War will begin with an in-depth examination of
the global issues which led to World War I. Through the
use of textbook readings and videos, students will gain
insight into the perspectives and actions of the major
combatants in the Great War. Special attention will then
be given to the failings of the Weimar Republic and the
rise of Adolph Hitler. As the course continues, students
will explore the inevitability and significant events of
World War II. The course will conclude with study of the
Holocaust. Presentation of this portion of the course will
contain graphic and frank imagery of the brutality uncov-
ered by the Allies’ liberation of the death camps.

Independent Africa
Grades 10 - 12
20 weeks, ½ credit
Prerequisite: Global Studies 9

Independent Africa will be a half-year elective that focus-
es on the struggle for independence and the aftermath of
European imperialism on the African continent. The
course will focus on three case studies: South Africa,
Rwanda, and Kenya. All three have extraordinary circum-
stances that reveal the value of individual human rights
and the hardships one faces when challenging a domi-
nant power. The resulting effects of independence are
also studied as each nation struggled with abandonment
and a lack of guidance in the aftermath of imperialism.

The United States in the 20th Century
Grades 11 - 12
40 weeks, 1 credit

Students will examine changes in American society at the
end of the 19th century as it confronted issues such as
industrialization, immigration, and urbanization. Students
will compare and contrast policies and attitudes toward
isolationism and collective security. Students will study
the impact of World War I and determine how the res-
olution to that way set the stage for World War II. Stu-
dents will also study the changing values of the 1920’s,
the stock market crash of 1929, the Great Depression,
and the social, economic, cultural, military, and political
growth and change in the United States from World War
II to the present.

Interpretations of American History I (HVCC
HIST110)
Interpretations of American History II (HVCC
HIST111)
Grade 12
20-40 weeks, 1/2 - 1 credit (3-6 HVCC credits)
Prerequisite: Global 9, 10, US History

HIST110 is an elective course that covers issues and
problems in American history through Civil War period
for the first semester (quarter one and two). Students
may continue on to Interpretations of American History II
for the second semester (quarters three and four), which
covers the Reconstruction era through present time. This
course is run through HVCC and students are able to
earn up to six college credits.
Residential Structures
Grades 9-12
40 weeks, 1 credit

This course is an introduction to basic building materials, construction sequences, house systems, skills, and construction techniques involved in residential construction. It is designed to give students basic, entry level skills in construction and related trades along with an overview of career opportunities available. Throughout the course emphasis is placed on safety and the proper use of both hand and power tools. Students will complete a variety of hands on projects that will reinforce course content.

Introduction to Woodworking
Grades 9-12
40 weeks, 1 credit

Woodworking is a hands-on project and lab-centered course, which is designed to develop the student’s knowledge, concepts, and skills in woodworking. Students will have the opportunity to design, plan, layout, and construct different projects pertaining to several different areas of woodworking. Emphasis in the course will include design, furniture styles, joinery, construction principles, craftsmanship, project planning, measurement, finish types and critical thinking. Safety is stressed throughout the course and is integrated into instruction on all equipment and processes.

Advanced Woodworking
Grades 10-12
40 weeks, 1 credit
Prerequisites: Introduction to Woodworking

This course will enable students to further their knowledge, concepts and skills in woodworking. It will provide an opportunity to design, plan, layout, and construct various woodworking pieces. Emphasis in the course will include, design and styles of furniture, joinery, construction principles, operation of advanced woodworking equipment, craftsmanship, development of jigs and fixtures, project planning, and critical thinking. Safety is stressed throughout the course and is integrated into instruction on all equipment and processes.

Power Mechanics
Grades 9-12
20 weeks, ½ credit

This course covers the operation small gasoline engines and concentrates on the maintenance, repair and rebuilding of engines and power equipment. Project work will involve experiences with garden tractors, lawnmowers, chainsaws, string trimmers and other small engines.

Automotive Technology I
Grades 10-12
40 weeks, 1 credit
Prerequisites: Power Mechanics

This every other day double-period course covers Automotive Engine Systems, such as the ignition, cooling, lubrication, fuel and emission control system. The operation, maintenance and repair of each system is reinforced through hands-on activities working on cars and trucks. No prior automotive knowledge is necessary.

Automotive Technology II
Grades 11-12
40 weeks, 1 credit
Prerequisites: Automotive Technology

This every other day double period course expands the Automotive Technology course continuing instruction in the areas of clutches, manual transmission, automatic transmission, drivelines and chassis systems. Welding equipment is also covered, and the majority of experiences are from auto repair working on cars and trucks.

Design, Drawing & Production (DDP)
Grades 9-12
40 weeks, 1 credit
Prerequisites: None

In this course students will learn a variety of drafting methods and computer programs in the design and development process. Students will complete CAD drawing that then will be transformed to a real object on our CNC machine. By taking this class students will experience a shift from conventional learning methods to this problem-approach method. This will require the use creative thinking, decision making, and problem-solving experience, through the use of drawings and related projects.

*Upon completion, this course fulfills the Fine Arts requirement for graduation
Introduction to Engineering
Grades 10-12
40 weeks, 1 credit
Prerequisites: Algebra I

This course is designed to give students a real look into the different disciplines of engineering. It will cover selected topics in Materials Engineering, Mechanical Engineering, Civil Engineering. Other engineering disciplines may be explored in the event of student interest. Students will learn about properties of materials, stress, strain and failure criteria, the design process, truss analysis, simple machines, and an introduction to robotics. Throughout the course there will be tests, lab activities, and several major projects. (For example, students will learn how to mathematically determine the stresses in a simple truss bridge. Students will design the bridge, and based on material properties determine the maximum load of the bridge. Students will then test the bridge and analyze the results).

Introduction to Robotics
Grades 10-12
40 weeks, 1 credit

Introduction to Robotics is a hands-on course that aims to teach students the basic concepts of robotics, focusing on the construction and programming of autonomous mobile robots. Course information will be tied to design and construction activities; students will work in groups to build and test increasingly more complex mobile robots, culminating in an end-of-semester (midterm exam) and end-of-year (final exam) robot contests. We use the VEX Robotic Design System as our main platform, but will also use other platforms during the course of the year and as time permits. Students are encouraged, but not required, to join our competitive robotics team (Hoosick Falls CyberPanthers).

Advanced Robotics I
Grades 11-12
40 weeks, 1 credit
Prerequisites: Introduction to Robotics; a completed course application; Instructor approval.

Advanced Robotics expands on the skills acquired in Introduction to Robotics, with a heavy emphasis on the design and construction of efficient VEX robots for specific game skills. Students develop advanced programming skills and learn to incorporate remote sensors and timed subroutines into their robotics projects. At the end of the year students will work on a group robotics project such as building and programming an underwater robot or remote controlled drone. Students who take this course are required to participate as a team member on the Hoosick Falls CyberPanthers VEX robotics team.

Advanced Robotics II
Grades 12
40 weeks, 1 credit
Prerequisites: Advanced Robotics I, Instructor Approval

Students who take this course will act as team leaders on Hoosick Falls CyberPanthers VEX robotics team. As such, they will develop skills in planning the design and construction of successful robots that can withstand several weeks of competition at the highest level. At the end of the year they will complete an Independent robotics project (subject to instructor approval).

Electrical Systems
Grades 9-12
40 weeks, 1 credit

This course will introduce students to electrical and electronic theory, circuits and devices. Topics covered include circuit design, resistors, transformers, transistors, capacitors, motors, house wiring, automotive wiring, solar panels, generators, circuit boards and microprocessors. Students will gain skills with tools and test equipment through the construction of electrical and electronic projects. Students will learn how to program an Arduino (a type of open source microcomputer) to control buttons, LEDs, motors, speakers, servos, cameras, light, sound and motion detectors.
Studio Art
Grades 9-12 (Mr. Viera & Ms. Collins)
40 weeks, 1 credit

Studio Art is the first high school art course and the prerequisite for all future courses. This studio-based art course is designed to emphasize the creative process and artistic production in both 2-dimensional and 3-dimensional art forms. Students will use inquiry, literature, and critical thinking skills to solve problems through artistic means. Students will be learning about the elements of art, the principles of design, why they exist and how to apply them to each individual project. They will also be learning about various techniques, skills, art movements, and styles used around the world. Students will be encouraged to use their own interests, personality, and individuality in their artwork. Students should be able to express their voice in a visual format as well as appreciate and evaluate their work and the work of others.

*Upon completion, Studio Art fulfills the Arts requirement for graduation

Advanced Studio Art
Grades 10-12 (Mr. Viera)
40 weeks, 1 credit
Prerequisites: Studio Art (overall average 85% or higher)

Advanced Studio Art builds upon the skills developed in Studio Art, requiring an increased focus on the principles of artistic design, expansion of verbal and written critiques and development of a portfolio.

Computer Graphics
Grades 10-12 (Mr. Viera)
40 weeks, 1 credit
Prerequisites: Studio Art (overall average 85% or higher)

This course is focused on the use and application of Adobe Photoshop. Students will use the various tools of Photoshop to manipulate and edit photographs and images to create finished pieces of digital art. They will be learning about the principles of design and using them to express their ideas. Throughout the course, students will be encouraged to emphasize their own interests, personality, and individuality in the creation of their artwork. At the conclusion of the course, each student will have a unique digital portfolio of their work uploaded to the cloud and viewable from anywhere in the world.

Ceramics & Advanced Ceramics
Grades 10-12 & Grades 11-12 (Ms. Collins)
40 weeks, 1 credit
Ceramics Prerequisites: Studio Art (overall average 85% or higher)
Advanced Ceramics Prerequisites: Ceramics

These two classes are designed for students who have an interest in working with clay. Students will gain experience in making functional and sculptural works in clay using a variety of handbuilding and wheel-throwing techniques. They will draw on their knowledge of the elements of art and the principles of design to create, refine, and glaze ceramic forms using various methods and materials. As in Studio Art, students in this course use inquiry, literature, and critical thinking to solve visual art problems. Students also learn about historic and modern ceramic and styles and techniques used around the world. Throughout the course, students are encouraged to emphasize their own interests and personality to create original works of art. Visual literacy, idea development, problem solving, reflection, good craftsmanship, and time management skills are strongly emphasized.

Class Requirement: Students will display their work in the school as well as the community. Students will participate in art field trips, community art projects, and fundraisers. Information about museums, galleries, studios, and community resources will also be shared.

Advanced Placement 2D Art & Design
Grades 11-12 (Mr. Viera)
40 weeks, 1 credit - Weight 1.1%
Prerequisites: Advanced Studio Art

This advanced studio-based art course is designed to develop a professional portfolio in the visual arts, expand artistic skills, and further emphasize artistic production. Students will develop technical skills and become familiarized with the functions of visual elements as they create an individual portfolio of work for evaluation at the end of the course. They will demonstrate mastery through any two-dimensional medium or process, such as graphic design, digital imaging, photography, collage, fabric design, weaving, fashion design, fashion illustration, painting and printmaking.

Related Assessment: Portfolio Submission (administered in May)
Advanced Placement Drawing
Grades 11-12 (Mr. Viera)
40 weeks, 1 credit - Weight 1.1%
Prerequisites: Advanced Studio Art

This advanced studio-based art course is designed to develop a professional portfolio in the visual arts, expand artistic skills, and further emphasize artistic production. Students will develop technical skills and become familiarized with the functions of visual elements as they create an individual portfolio of work for evaluation at the end of the course. They will explore drawing issues including line quality, light and shade, rendering of form, composition, surface manipulation, the illusion of depth and mark-making through a variety of means, such as painting, printmaking or mixed media.

Related Assessment: Portfolio Submission (administered in May)
Spanish A1
Grade 7
40 weeks, 1 credit
Prerequisites: None

This course, based on state and national standards, is the beginning of a student’s language sequence. It introduces students to the language and cultures of the Spanish-speaking world.

Spanish A2
Grade 8
40 weeks, 1 credit
Prerequisites: Spanish A1

This course, based on state and national standards, is a continuation of Spanish A1. It strengthens the students’ language skills at the novice level and expands their knowledge of culture. Students who pass this course and the final exam receive one high school credit in Language Other than English, which is required for high school graduation.

Spanish A
Grade 9-12
40 weeks, 1 credit
Prerequisites: None

This credit recovery course, based on state and national standards, is designed for students who have not earned one high school credit in Languages Other than English by the 9th grade. It introduces students to the language and cultures of the Spanish-speaking world. Students who pass this course receive one high school credit in Languages Other than English, which is required for high school graduation.

Spanish B1
Grade 9
40 weeks, 1 credit
Prerequisites: Spanish A1, Spanish A2, and Passing a Spanish proficiency exam or Spanish A.

This course, based on state and national standards, strengthens the students’ language skills at the intermediate level and expands their knowledge of culture.

Spanish B2
Grade 10
40 weeks, 1 credit
Prerequisites: Spanish B1

This course, based on state and national standards, is a continuation of Spanish B1. It strengthens the students’ language skills at the intermediate level and expands their knowledge of culture. Students who pass this course and the final exam meet the Languages Other than English requirements for the Regents Diploma with Advanced Designation.

HVCC Spanish 200
Grade 11
40 weeks, 1 HS credit, 3 HVCC college credits
Prerequisites: Spanish B1, Spanish B2, and Passing the Regents Exam

This course offers a review and extension of grammar, concentrating on expanding vocabulary, conversational fluency, writing and reading skills, and cultural understanding through the discussion of selected readings in Spanish. Classroom discussions are conducted primarily in Spanish and are supplemented with computer-enhanced exercises.

HVCC Spanish 201
Grade 12
40 weeks, 1 HS credit, 3 HVCC college credits
Prerequisites: HVCC Spanish 200

A continuation of HVCC Spanish 200, this course completes the review of Spanish grammar and provides more reading of Spanish works. Classroom discussions, conducted primarily in Spanish, concern classroom readings and Spanish customs and culture. Classroom instruction is supplemented with computer-enhanced exercises.
“The mission of Hoosick Falls Central School District is to develop responsible citizens who possess the knowledge, skills, & values to be successful participants in a global society.”