

HOOSICK FALLS HIGH SCHOOL



2022-2023 CURRICULUM GUIDE

Letter from the Principal

Dear Students and Families,

Welcome to the High School Curriculum Guide for the 2022-2023 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 School Counseling Office if you have any questions.

Respectfully,

Michael J. Hall
Hoosick Falls High School Principal

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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.

PROGRAM PLANNING GUIDE

The information presented in this guide is designed to assist you in planning programs for your high school career. We believe that parents and students should work closely with teachers and school counselors in considering the various courses and programs that are available. The scheduling process begins with grade-level classroom visits. Counselors assist students in classrooms with Course Selection Sheets. Parents are invited and encouraged to participate in the scheduling process at any time. Appointments can be made by contacting the College and Career Counseling Center directly. There will also be summer hours available to discuss schedule changes. The responsibility for selection of courses is shared by the students, parents and our School Counselors.

It is important to mention this Curriculum Guide includes a vast array of possible offerings. Please understand that just because you have expressed an interest in a particular course, it does not guarantee that it will be offered in the upcoming school year. Actual course offerings are determined by staffing availability and/or student enrollment. Therefore, the listing of alternative course choices in the selection process is essential.

HOW SCHEDULING WORKS

The following timeline will be in place for the 2022-2023 school year:

January 2022 - February 2022

- Course selections completed in core classes
- Begin master schedule build

February 2022

- Teacher recommendations provided to school counseling department
- School counselors cross reference teacher recommendations vs. student course selections
- Student course selections mailed home with quarter 2 report card
- Continue master schedule build

March 2022 - May 2022

- Tentative schedules reviewed by school counselors and administration
- Finalize master schedule build

June 2022

- Teachers given courses and tentative schedules for 2022- 2023 school year
- Summer assignments handed out for accelerated courses
- School counselors notify students/families that qualify for summer school
- Tentative schedules mailed out with final report card

July 2022 - August 2022

- School counselors available by appointment to make schedule request changes
- School counselors finalize summer school grades/scores and adjust final schedules
- Final schedules available in eSchool and mailed home for 2022-2023 school year

September 6, 2022 - September 16, 2022

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

September 17, 2022 - and beyond

- Add/Drop requires administrative approval

Requests for dropping a course or changing a 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, counselor and administrator are required for changes after the deadline.

NEW YORK STATE GRADUATION REQUIREMENTS

For a more detailed description of New York State Graduation Requirement please go to:

<http://www.nysed.gov/common/nysed/files/currentdiplomarequirements.pdf>

Course Requirements: Students must earn the following course **credits** in order to graduate with a Regents or Advanced Regents diploma.

Regents Diploma

Units

English	4
Social Studies	4
Science	3
Math	3
Foreign Language	1(a)
Health	.5
Art and/or Music	1
Physical Education	2
Electives	3.5
Total Credits	22

Advanced Regents Diploma

Units

English	4
Social Studies	4
Science	3
Math	3
Foreign Language	1(a)
Health	.5
Art and/or Music	1
Physical Education	2
Electives	3.5(b)
Total Credits	22

(a) Students are required to have completed one unit of language by the end of their freshman year.

(b) A three unit sequence in a Foreign Language, or a five unit sequence in an elective pathway (art, technology, etc).

Traditional Exams Required for Graduation:

Students must demonstrate competency in reading, writing, math, science, U.S. History and Global Studies by passing the examination listed below with a **65 or higher***:

Regents Diploma

Common Core English exam
Global History & Geography exam
U.S. History and Government exam
1 Math exam (typically Algebra)
1 Science exam

Advanced Regents Diploma (all required for Regents plus the following):

Geometry & Algebra II Common Core exams
Additional Science exam (either Life or Physical depending on prior)
Foreign Language Checkpoint B exam (or a five credit sequence - see (b) above*)

*There are also a variety of “non-traditional” Assessment Combinations for Advanced Designation. See the link below.

Variations to the above testing requirements:

The following link outlines the diploma and credential requirements currently in effect for New York State:

<http://www.nysed.gov/common/nysed/files/programs/curriculum-instruction/diploma-and-credentials-summary-requirements.pdf>

The chart in the link above is intended to provide an overview of the requirements and identify the student populations that have access to each type of diploma and non-diploma high school exiting credential. Websites are provided in the link to offer specific regulatory requirements and more detailed information regarding the requirements for each diploma or credential.

Our high school counselors work with each student and family individually to determine the best pathway towards a diploma and/or credential. Students/parents are welcome to meet with counselors to discuss the various pathways at any time.

HIGH SCHOOL TESTING

Advanced Placement (AP)

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.

Practice Stanford Achievement Test (P.S.A.T.)

The PSAT is offered by the College Board and is administered in October during the school day. The standardized test is meant to give students a change to experience what it may be like on the S.A.T. All juniors take this examination, as well as sophomores who express interest. The PSAT is also the National Merit Scholarship qualifying test, which means juniors who score well compete to earn scholarship money. Parents and students are notified approximately one month before the examination of its date and time. Students who are unable to test should communicate with their counselor for additional opportunities.

SAT I, SAT Subject Test & ACT

The college entry exams, SAT and ACT are usually taken in the spring of junior year and/or fall of the senior year. Registration materials for SAT I, SAT Subject Tests and ACTs are available in the College and Career Center. Please see the following websites for more information and/or contact your school counselor to discuss options:

SAT I, SAT Subject Tests: <http://collegeboard.com>

ACT: <https://www.act.org/>

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, science and technical skills. The test is followed up with a 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.

SUPPORTIVE AND ALTERNATIVE PROGRAM OPTIONS

At Hoosick Falls High School, a variety of additional programs are offered to meet individual student needs. These programs are run at our school and off-campus. Students are provided qualified teachers and staff, and all ultimately lead to a New York State Regents Diploma or its equivalent.

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. Students 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 additional interventions. The Response to Intervention (RTI) 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.

Restore U

Restore U is an on-campus academic respite program for grades 9-12. 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.

TASC Program at Troy EOC

Formerly known as the GED program, the TASC program provides students who have reached maximum compulsory age (16) the opportunity to achieve a High School Equivalency Diploma. This program is offered through Hudson Valley Community College and the Troy EOC program. Information can be found at: <https://www.hvcc.edu/programs/eoc/tasc.html>.

*A determination from the High School Administration and Counseling Department, along with the approval of the Superintendent is required for this option. Students should first speak with their school counselor if they are interested in pursuing 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.

https://www.svcdc.org/program_of_studies.php

AGRICULTURE

Introduction to Agriculture, Food and Natural Resources

Grade 9-12

40 Weeks (full year) 1.0 Credit

This is the first course in a sequence for agriculture/business courses. It incorporates hands-on learning, as you get an introduction to plant science, animal science, food science and processing, leadership development, and Future Farmers of America (FFA).

Animal Science

Grade 9-12

20 Weeks (half year) 0.5 Credit

This course emphasizes the study of animal reproduction, nutrition, health and management. Soil and plant science in relation to animal health is also stressed. Students learn how an animal's body works to utilize feed and grow healthy. Field trips and career development events enable students to utilize hands-on skills and become future leaders in the field of animal science. Potential dual credit opportunities with colleges.

Introduction to Agriculture Business Management

Grade 9-12

40 Weeks (full year) 1.0 Credit

A broad introduction to the function and structure of the U.S. Agribusiness from macro and micro perspectives with close examination of the relationship between production agriculture and Agribusiness; topics of discussion will include the size and importance of Agribusiness, forms of businesses, planning and organizing and Agribusiness, financial management and accounting, and Agribusiness input and supply sectors. Possible dual enrollment options through colleges.

Agriculture Marketing

Grade 9-12

20 Weeks (half year) 0.5 Credit

As our world grows to 8 billion people the challenge to feed everyone grows. This challenge falls directly on the shoulders of agriculturists on every continent. This class will focus on food supply chains and the logistics of moving Agriculture products from the producer to the markets worldwide. Maybe world hunger can be solved through efficient transportation and direct response to the needs of every nation.

Horticulture (Plant Science)

Grades 9-12

20 weeks (half year course)

Pre-Requisites: Introduction to Agriculture (AFNR)

Students explore the many aspects of horticulture and landscaping. A study of agronomy (soil science) is followed by an in-depth study of how plants grow and the environmental factors which affect plant growth. Hands-on lab work includes field trips, greenhouse work and the opportunity to participate in related career development events. This course is recommended for students interested in working with plants, both as ornamental and food enterprises.

Food Production and Management

Grades 9-12

20 weeks (half year course)

Pre-Requisites: Introduction to Agriculture (AFNR),

Introduction to Agriculture Business Management

This course will focus on the common food production systems and trends in our country with some focus globally as well. With the current pandemic we have seen a shift in the United States Food Production system towards a more buy local trend, back yard gardens and a resurgence in classic food preservation techniques. Through hands-on projects, field trips and guest lectures we will explore our Food Production system. Topics covered will include: Maple production, regenerative agriculture, livestock production (food for food), on farm processing, organic agriculture practices, Community Supported Agriculture and food hubs.

BUSINESS

Personal Finance

Grade 10-12

40 Weeks (full year) 1.0 Credit

The knowledge and skills you will learn in this class will help you make good financial decisions - now and in the future. Decisions you make now can affect the income you will earn for the rest of your life. The four main areas of concentration in this course will be: Understanding Income, Money Management, Spending and Credit, Saving and Investing

BUSINESS *continued*

Accounting

Grade 11-12

40 Weeks (full year) 1 Credit

Students desiring to take Accounting will be given an introduction to the world of accounting. The class will cover the basic accounting cycle, beginning with business transactions and the accounting equation, transactions that affect assets, liabilities, and owner's capital, transactions that affect revenue, expenses, and withdrawals. Students will record transactions in a general journal, post journal entries to general ledger accounts. They will also prepare a six-column worksheet and financial statements for a sole proprietorship culminating with the completion of the accounting cycle for a sole proprietorship.

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", "perseverance" 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 Kesey 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 an 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.

Film Studies

Grade 10-12

20 Weeks (half year) 1/2 Credit

Prerequisite: English 9: Literary Analysis and Composition I

The course is designed for students to study various film genres using critical thinking skills. The goal of the course is for students to analyze film with open classroom communication. Students should be able to actively participate with discussion pertaining to character

development, director's/producer's choice, social concepts, conflicts, etc.

The course will not only involve watching film, but responding through conversation and written work: worksheets, journals, and creative writing. Active participation and appropriate attention will be a key factor in the course following in-class viewing of each film.

HEALTH, WELLNESS AND PHYSICAL EDUCATION

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.

MATHEMATICS

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 either prepare students for Regents Geometry or count as one of their three required mathematics credits for graduation. It combines algebra and basic geometry skills needed to be successful in Common Core Geometry. Topics will include, but not limited to, exponents and square roots, linear equations, properties of polygons, angle relationships, measurement and modeling of 2D and 3D figures, transformations, constructions, and more. 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 geometry curriculum is based on the frameworks designed by the New York Department of Education. In this class, students will focus on learning the Common Core Geometry standards. Topics include congruence and similarity of triangles, transformations, coordinate geometry, constructions, quadrilateral properties and proofs, circle properties and proofs, and measurement and modeling of 2D and 3D figures, right triangle trigonometry, and more.

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

PERFORMING ARTS

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 the 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 write reviews of four performances.

*Students may register with Hudson Valley Community College to be eligible to receive up to three undergraduate credits. Their tuition is reduced through the College in the High School Program. Students on free and reduced lunch may apply for scholarships.

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.

*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.

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 requirement for admittance to the Regents Exam

Regents Physical Setting: Chemistry

Grades 11-12 (10th grade accelerated)

40 weeks, 1 Credit, Lab Requirement

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. 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/ SUNY General Physics I: (APHY 105 and APHY 106)

Grades 11-12

40 weeks, 1 credit (possible 4 college credits), Lab Requirement

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.

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 phenomena. 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.

General Chemistry

Grades 11-12

40 Weeks, 1 credit

Prerequisites: Two years of high school science

This course covers fundamental principles and laws of chemistry, Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws and solutions.

Applied Physics

Grades 11-12

20 Weeks, 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.

National Parks

Grades 11-12

20 Weeks, 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.

Astronomy

Grades 11-12

20 Weeks, 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, 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, ½ credit

Prerequisites: Two years of high school science

**** Hands on dissection of preserved specimens is required. ****

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.

SOCIAL STUDIES**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/Economics

Grade 12

40 weeks, 1 Credit (Required)

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.

Additionally, 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.

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, Holocaust and Vietnam. 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 along with a study of the Holocaust. Presentation of this portion of the course will contain graphic and frank imagery of the brutality uncovered by the Allies' liberation of the death camps. The course will conclude with a comprehensive understanding of Vietnam by exploring the Cold War, the war itself through the lens of various perspectives. This course will be primarily project based with the use of instruction, readings, film, and survivor stories.

[History and Popular Culture](#)

Grades 11 - 12

40 weeks, 1 credit

Popular culture has been described as an “unwieldy subject” because it encompasses almost the totality of human existence. The approach taken in this course is to understand this concept by using the framework of the American city as a window into our popular culture.

Using primary sources (literature, films, pictures, and music) students will study and apply theories of popular culture and aesthetic hierarchy; explicate the historical contexts of various artistic movements; discuss cultural imperialism; address problems of cultural appropriation, creativity, and identity; and examine cultural expressions of social differences and deviance. Other topics include discussion of selected studies in the social history of culture in the age of mass society, including the popular arts, and the “culture of consumption.”

[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 the Civil War period for the first semester (quarter one and two). Some of the topics include Life in Provincial America, The Empire under Strain, and The American Revolution through The Impending Crisis, The

Civil War, and the Reconstruction and the New South. 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. Some topics include Reconstruction and the South, the Conquest of the Far West, and Industrial Supremacy through The New Deal, The Global Crisis and The Cold War. This course is run through HVCC and students are able to earn up to six college credits (if they take both courses; three college credits will be earned if they take one).

[TECHNOLOGY](#)

[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 I](#)

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 of 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 or 2 credits
Pre-Requisites: 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 of 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).

VISUAL ARTS

Studio Art

Grades 9-12 (Mr. Viera)
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 I

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. 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.

[\(AP\) 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)

[\(AP\) 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)

[WORLD LANGUAGES](#)

[Spanish I](#)

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 World Languages 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 World Languages, which is required for high school graduation.

Spanish II

Grade 9

40 weeks, 1 credit

Prerequisites: Spanish 7, Spanish 8 and passing a Spanish proficiency exam or Spanish I.

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

Spanish III

Grade 10

40 weeks, 1 credit

Prerequisites: Spanish II

This course, based on state and national standards, is a continuation of Spanish II. 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 World Languages requirements for the Regents Diploma with Advanced Designation.

HVCC Spanish 200

Grade 11

40 weeks, 1 HS credit, 3 HVCC college credits

Prerequisite: Spanish I, Spanish II 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.