Spackenkill High School

Course Directory

2021 - 2022



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Table of Contents

How to Use This Directory……1
Counseling Center……2
Diploma Requirements……3
College Preparation……5
Course Selection……5
Standardized Tests……5
Testing Schedule……6
College Courses……6
Dutchess Community College……6
Course Information……7
ART……9
Studio in Art……9
Studio in Drawing & Painting……9
Studio in Ceramics……9
Studio in Graphic Arts……9
Independent Study Art 1……10
Independent Study Art 2……10
Advanced Painting (Honors)……10
AP Studio in Drawing (Advanced Placement)……10
Design and Drawing for Production……11
Architectural Drawing……11
COMPUTER……12
Computer Studies……12
Programming 1……12
Programming 2……12
AP Computer Science A……13
AP Computer Science Principles……13
ENGLISH……14
English as a Second Language……15
Common Core English 9 (Honors)……15
Common Core English 9 (Regents)……15
Common Core English 10 (Honors)……16
Common Core English 10 (Regents)……16
AP English Language and Composition (Advanced Placement)……16
Common Core English 11 (Regents)……17
Common Core English 11 (Honors)……17
AP English Literature and Composition (Advanced Placement)……17
World Literature……18
English 12H Dual – Eng 101/102 – DCC (Honors)……18
Communications 1 (Elective)……18
Communications 2 (Elective)……19
Public Speaking Dual (Elective)……19
The World of Sports Through its Literature (Elective)……19
SAT Prep English (Elective)……19
English AIS……20

Table of Contents

FOREIGN LANGUAGE……21
French 1……...21
French 2……...21
French 3……...22
French 4 (Honors)……22
French 5 (Honors)……22
AP French Language (Advanced Placement)……..22
Spanish 1……..23
Spanish 2……..23
Spanish 3……..23
Spanish 4 (Honors)……...23
Spanish 5 (Honors)……...24
AP Spanish Language (Advanced Placement)……24
HEALTH……..25
MATHEMATICS……26
Common Core Algebra I……..26
Common Core Algebra XT-1……...26
Common Core Algebra XT-2……...26
Common Core Geometry Honors……26
Common Core Geometry……..27
Common Core Geometry with Lab……...27
Common Core Algebra II Honors……27
Common Core Algebra II……..28
Common Core Algebra II with Lab……...28
Precalculus Honors……28
Precalculus Dual...……29
AP Calculus BC (Advanced Placement)……...29
Calculus 1H Dual (Honors)……..…..……...……29
Applied Financial Mathematics……30
Elementary Statistics……30
Intermediate Algebra……30
Geometry in Action……...31
Trigonometry……31
Financial Literacy……..31
Math AIS……....32
SAT Prep Math……..32
MUSIC EDUCATION……...33
Music Theory……33
AP Music Theory……...…33
Band……...33
Chorus……....34
Orchestra……....35
String Ensemble Honors……35
PHYSICAL EDUCATION……...37

Table of Contents

SCIENCE……..38
The Physical Setting: Earth Science (Regents)…….38
The Living Environment: Biology (Regents)……39
The Living Environment: Biology Honors (Regents)……...39
The Physical Setting: Chemistry (Regents)……...39
The Physical Setting: Chemistry Honors (Regents)……..39
The Physical Setting: Physics Honors (Regents)……...40
Forensic Science……....40
Math, Science and Technology I and II…….40
Principles of Chemistry I and II……..……..41
Principles of Physical Science I and II……..41
Science Research Class 10……41
Science Research Class 11……41
Science Research Class 12……....41
Science AIS……...42
AP Biology Dual (Advanced Placement)……..…….....42
AP Chemistry (Advanced Placement)…….…..43
AP Physics C: Mechanics, Electricity and Magnetism (Advanced Placement)……....43
Introduction to Engineering Design……...44
Principles of Engineering……...44
Environmental Sustainability…….....45
SOCIAL STUDIES……....46
Global History and Geography 9……...46
Global History and Geography 10……46
United States History and Government 11……....46
AP United States History and Government (Advanced Placement)……47
AP European History (Advanced Placement)……...47
Participation in Government……48
Participation in Government Honors Dual (Honors)..……..48
Economics……..…...48
Economics (Honors)……..48
Psychology (Elective)……....49
Sociology (Elective)……..49
Nazi Germany and the Holocaust (Elective)…….....49
Social Studies AIS…….....49
DUTCHESS BOCES CAREER AND TECHNICAL INSTITUTE…….....50

How To Use This Directory

Each year at the beginning of the second semester, you will select courses for the following year. Your selection will be based on graduation and college entrance requirements and on your own special needs and interests. At a conference with your counselor, you will discuss the courses needed to complete next year's program and to develop a general plan of studies for your years at the high school.

READ the requirements for graduation and for college preparation.

EXAMINE the Special Program Opportunities so that you will be aware of the ways by which you can earn credits.

USE the course selection worksheet provided by the Counseling Center. Write your courses for next year with the number of periods they meet for the week and the credit units they carry.

TOTAL the number of assigned and unassigned periods, and you will get a picture of your weekly workload.

WRITE in your tentative courses for the years ahead, keeping in mind whatever college major or career choice you are considering. You should also make plans to explore and pursue courses in subjects or areas that interest you. You may not have this opportunity after high school.

Counseling Center

Counseling at Spackenkill High School encompasses a number of activities and commitments, all of which are designed to help the Spackenkill High School student. In its simplest form, counselors perform a service function, dedicated to the student and their life at the high school and after.

The counseling relationship starts at the time students are assigned to a counselor. The counselor is committed not only to orienting the student to a new academic environment but also to establishing a relationship with the student. Students learn procedures and the processes of "what to do" and "how to do" as they go through their daily lives at SHS. By learning the techniques of dealing with responsibilities and commitments undertaken in their high school lives, they become more effective students and better prepared for life after high school.

Students are encouraged to keep in close contact with their counselors who play a key role in their daily lives. It is the counselor who advises and counsels students about concerns and questions which arise during those years. Pressures and tensions encountered by a student as well as issues of a social nature, relationships with others, substance abuse, and personal or family problems can also be brought to the counselor.

Although much of the counseling at Spackenkill High School is done on an "as needed" basis, there are times when a structured contact between the counselor and student accomplishes the established objectives of the counseling program. Course planning and college selection are two examples of the structured contact. Students and their parents can also expect to meet with the counselor to review matters of mutual concern, to effect decisions related to a program of studies, and, ultimately, to decide on a list of colleges to which the student will apply. The calendar for these activities is:

- Orientation to the high school and review of graduation requirements - 8th and 9th grades
- Program planning conferences - 9th, 10th, and 11th grades
- Career awareness activities - 10th grade
- College research and/or post high school planning activities - 11th grade
- College selection conferences - 11th and 12th grades

Diploma Requirements

To satisfy graduation requirements, all regular education students must earn either a Regents Diploma or a Regents Diploma with Advanced Designation and must accrue **22 units of credit**. All regular education students must also pass 5 Regents exams.

Course Requirements			Exam Requirements
COURSE	MINIMUM CREDITS	REGENTS DIPLOMA	REGENTS DIPLOMA w/Advanced Designation
English	4	Comprehensive English Exam	Comprehensive English Exam
Social Studies			
Global History 1 & 2	2	Global History Exam*	Global History Exam*
US History	1	US History Exam	US History Exam
Part in Gov't	½		
Economics	½		
Mathematics	3	Algebra I	Algebra I, Geometry, Algebra II
Science	3	1 Science Regents Exam	2 Science Regents Exams
Foreign Language	1 3	1 credit	3 credits of the same language
Fine Arts	1		
Physical Ed	2		
Health	½		
Computer Literacy	½		

Note: All students must take physical education every semester they attend school. Failure to attend physical education class could result in failure to graduate. Students must earn the equivalent of ¼ credit each semester while in attendance.

*As per the 4+1 graduation requirements, this exam may be replaced by a state approved alternate exam. All state approved exams can be found on the high school website.

State Competency Requirements

The New York State Education Department requires that all students demonstrate competency in English, Mathematics, Science, and Social Studies (Global History* and US History) before receiving a high school diploma. For this purpose, Regents exams are used.

· All students will take Regents examinations in English, Mathematics, Global History*, US History and Science.

· Students wishing to receive a Regents Diploma with Advanced Designation will take two additional mathematics Regents exams and one addition science Regents exam.

All students will earn a Regents diploma. Five* Regents exams must be passed for students to earn a high school diploma.

A limited number of January examinations may be available if requested by the student by the end of the first week of October. Requests for January testing should be made to the counselor after verification has been obtained from the appropriate teacher. Students should listen for announcements regarding this.

*As per the 4+1 graduation requirements, this exam may be replaced by a state approved alternate exam. All state approved exams can be found on the high school website.

College Preparation

Course Selection

In addition to meeting the requirements for graduation, students preparing for college need to consider college entrance requirements when choosing courses in high school. Due to the wide range of academic requirements among colleges, course choices may be diverse and highly individualized. The particular institution, and the specific major or program the student wants, will determine the courses selected over the four years. A basic college preparatory program of courses and units is:

Course	Units
English	4
Social Studies	4
Science	3 - 4
Math	3 - 4
Second Language	3 - 4

Students preparing for college should also consider Advanced Placement courses offered in high school. These courses can provide students with college credits. Refer to description of level in the *Course Information* section of this guide for more information on Advanced Placement courses.

Standardized Tests

Most colleges require students to take one or more standardized tests and consider these scores in their admissions processes. These tests are not part of any high school course. They are offered outside of the normal school day and each test is offered only on specific dates and at specific locations each year. Students should discuss these tests with their counselors to learn which tests they should take, when they will be offered, and how to enroll. The following standardized tests are the most common:

Preliminary Scholastic Assessment Test (PSAT) / National Merit Scholarship Qualifying Test
This test is similar in content to the SAT Test. It is generally taken in the fall of the junior year. Students register for the test through Guidance, typically in late September. The results are used in the National Merit Scholarship competition. Students who take the PSAT as 11th graders are automatically considered for the Merit competition.

Scholastic Assessment Test I (SAT I): Reasoning Test
The test is intended to assess a student's preparation for college by measuring their verbal and mathematical reasoning. This test is generally taken in the junior year or early in the senior year. A student may take this test as frequently as they desire. Most colleges require this test. Register online at www.collegeboard.com.

American College Test (ACT)
The ACT Assessment is designed to assess high school students' general education development and their ability to complete college level work. This test covers four skill areas: English, Mathematics, Reading, and Science reasoning. Register on line at www.actstudent.org.

Testing Schedule

The following is a general guide to when the standardized tests may be taken:

Grade 11 - PSAT/NMSQT
SAT
ACT

Grade 12 - SAT
ACT

SATs and ACTs can be repeated as frequently as the student desires.

College Courses

Many of the area's colleges make their courses available to qualified high school students. Some of our students, particularly seniors, may wish to pursue this opportunity and they can do so with the recognition and support of the high school. Taking a college course can be a way of easing the transition from high school to college, a way of taking a course which is difficult to schedule, or a way of diversifying the student's program. Specific programs are offered through Marist College and Dutchess Community College.

Dutchess Community College

Students may participate in the early admission program at Dutchess Community College (DCC). There are two options for students wishing to attend DCC.
1) Students enroll Full Time (12 + Credits) including English 101 and 102, Economics (ECO 105), American National Experience (GOV 121), and Wellness and Fitness Education (WFE 101). Students do not attend classes at the high school.
2) Students enroll part time, up to 9 credits. Students must take World Literature, Economics, Participation in Government, and P.E. at the high school. Students may not take English 101, 102, ECO 105, GOV 121 or WFE 101 in lieu of high school courses. Students will receive college credit from DCC and school credit from the high school. See your counselor for details.

Course Information

This course directory contains information about every course offered to students in Spackenkill High School. In addition to a brief description of the course, other important information is provided about each course to help you plan your high school curriculum. This section explains the additional information you will see for each course.

Grade

Many courses are restricted by grade. For example, *Precalculus* is offered to students in Grades 11 and 12 only. The Grade requirement is listed below the course title. Be sure you meet the Grade requirement before selecting the course.

Length and When Offered

Most courses meet every school day throughout the school year. Some courses, however, meet on odd days only or even days only. Other courses meet every school day but only for one semester. (A semester is one-half of a school year.) You will see just below the course title the length of the course (1 year or 1/2 year). If the course does not meet every school day, you will see what days it meets. If there is no indication how often the course meets, then it meets every school day. Finally, a few courses are offered only once every two years. Be sure to watch for these special cases.

Credits

For each course you complete successfully, you receive credit towards the requirements for graduation. Generally, a course which is conducted over the entire school year provides one credit; a course conducted for just half of the school year provides ½ credit; a course that meets every other day for the entire school year provides ½ credit. Some courses provide no credits. The credits you receive for completing the course successfully are listed below the course title. Be sure to read the section *Graduation Requirements* in this guide to understand the number of credits you must accumulate for graduation.

Factor

Each course has been assigned a "Factor". The Factor is a number - 0, 7, 8, 9, or 10 - which approximately describes the relative difficulty of the course. The Factor is used when calculating your "class rank." Your class rank is determined by your grade average for each course you take as well the Factors for these courses. For example, achieving an 85 average in a course that has a Factor 9 will improve your class rank more than achieving an 85 average in a course that has a Factor 8. Rank will be determined by the following formula:

$$\frac{\text{Grade x weighted factor x credit}}{\text{Total credits attempted}}$$

Level

The courses offered at Spackenkill High School are classified by "level". The level of a course indicates how the course contributes towards graduation requirements. You will find the level for each course in parentheses next to the course title. The levels and their meanings are as follows:

- General
  These courses provide a general education in the subject, but they provide no "Regents" credit for graduation. Be sure to read the *Diploma Requirements* section in this guide to understand what you must do to earn a Regents diploma or Advanced Designation.

- Regents
  These courses provide a more challenging education in the subject than the corresponding General course and can contribute units towards the Regents diploma.

- Modified
  These courses generally follow a curriculum similar to the corresponding Regents course, but the students are provided with additional support. The support may consist of additional classroom time, a variety of hands-on activities, or modified assessments.

- Honors
  These course are intended for the more mature and capable student who has demonstrated competency above the grade level.

- Advanced Placement
  These courses are high school courses for which students may earn college credits and/or college course exemption, or course placement. Advanced Placement (AP) courses are offered in Art, Computer Science, English, Foreign Language, Mathematics, Science, and Social Studies, and are described in detail in the departmental sections of this catalog. Students in AP courses are required to take an AP examination administered and rated by the Educational Testing Service in May. All AP exam scores must be posted on the permanent record card and transcript. The cost per subject examination is approximately $94.00. (2 tests are required for AP Physics C.) Also, a school final exam is required of all students in June.

- Academic Intervention Services
  These courses provide individualized instruction in small groups to help students improve basic skills. Students who do not meet requirements on the 8th grade assessments and or fail a required Regents exam may be enrolled in these courses.

Course Number

Each course has been assigned a course number. This number identifies the course in the computer programs that are used to create your personalized schedule.

ART

Studio In Art

Grade 9-12, 1 year, 1 credit, Factor 8, Course #6101

This course fulfills the New York State Regents requirement for one credit of Art or Music. It is usually taken in the freshman year and is the prerequisite for most other Art courses. *Studio in Art* is a foundation course that explores a wide variety of two dimensional and three dimensional media as well as basic art principles and modes of expression. It is the aim of the course to develop a genuine appreciation and sensitivity toward beauty, through the student's own experiments in this multimedia program. Students will develop a portfolio of work and must pass a comprehensive final exam. Students headed toward a Regents sequence in Art should declare their intentions while enrolled in *Studio in Art*.

NOTE: *Studio In Art* must be taken for one full year before enrolling in another art course except *Design and Drawing for Production*.

Studio In Drawing & Painting

Grade 9-12, 1 year, 1 credit, Factor 8, Course #6102

This is an advanced course that may be elected by a student who has completed *Studio in Art or Design & Drawing for Production* and desires to participate in advanced study in the area of drawing and painting. This course introduces the student to a wide variety of experiences in these media before he/she selects a particular medium for concentrated effort. The course that follows this course is Advanced Painting.

Prerequisite: *Studio in Art / Design and Drawing for Production*

Studio In Ceramics

Grade 9-12, 1 year, 1 credit, Factor 8, Course #6506

This class is designed for students who are interested in learning all the basic aspects of creating with clay. Students will build functional and sculptural pieces using a variety of techniques. Hand building, the potter's wheel and slip casting will be learned along with glazing and surface decoration.

Prerequisite: *Studio in Art / Design and Drawing for Production*

Studio In Graphic Arts

Grade 9-12, 1 year, 1 credit, Factor 8, Course #6505

This course is designed for students that are interested in all visual media. Good design is good design whether you are designing a web page, print ad or movie graphics, if you want to get a viewer's attention and keep it you need to know how to design effectively and creatively.

Students will learn the magic of Photoshop and how this program can be a powerful creative tool. Students will be learning how to incorporate, type, color, and use visual imagery to find creative solutions and to communicate meaningful ideas. Students are encouraged to incorporate their own art or areas of interest into the class. During the course, students will build a portfolio of diverse, two dimensional and digital artworks and will be prepared for college level graphic design classes.

Prerequisite: *Studio in Art / Design and Drawing for Production*

Independent Study Art 1

Grade 11-12, 1/2 year, 1/2 credit, Factor 8, Course #63011

Independent Study Art 2

Grade 11-12, 1/2 year, 1/2 credit, Factor 8, Course #63012

Only students who have exhausted our regularly scheduled art courses can select this option. Please note that this option can be exercised only with the combined consent of the Art Department and the Guidance Department.

Advanced Painting (Honors)

Grade 11-12, 1 year, 1 credit, Factor 9, Course #6103

This honors level course is designed for students who have a strong interest in continuing to refine their drawing and painting technical and creative skills. Students will explore a variety of drawing and painting media, applicable art historical and cultural study, art theory, and aesthetic inquiry. It is considered a pre-AP course because some of the work created in this course may be used toward their AP exam the following year.

Prerequisite: *Studio in Drawing & Painting with an 85 minimum average, and/or permission of the instructor. Art sequence students, then seniors receive first preference.*

AP Studio in Drawing (Advanced Placement)

Grade 11-12, 1 year, 1 credit, Factor 10, Course #6605

*Course offered on a yearly basis if enough potential candidates are available.

This AP level course in drawing and painting is designed for students who are able to move on to college level drawing and painting expectations. Students will develop and explore their own individual creative directions and styles. This is achieved through an intense and highly independent work process. In addition to the regular classroom studio time, the student will be involved with considerable outside work. There will also be some moderate material investment beyond what the school normally supplies. Students will need to document their work digitally on a regular basis in order to be able to submit their work to the College Board. Also, the AP exam in May must be taken in order to satisfy the AP factor requirements.

Prerequisite: *Advanced Painting*

Design and Drawing for Production

Grade 9-12, 1 year, 1 credit, Factor 8, Course #6515

This course is an introduction to technical drawing and model building. Students will learn how to solve some interesting design problems and then communicate their designs into technical drawings. Students will be learning how to create prototypes of their designs using foam core and cardboard. Students will use AutoCAD as their main drawing tool but also learn cutting, measuring and building skills along with isometric and orthographic drawing. Part of the year will be an introduction to Architectural drawing and design where students will learn how to design a house and create a three dimensional model. This class is a prerequisite to *Graphic Design, Painting and Drawing, and Studio in Ceramics*. Any student may use this course to satisfy the Art/Music requirement. It may also be used for local credit, for Art credit, or for Technology credit.

Architectural Drawing

Grade 10-12, 1 year, 1 credit, Factor 8, Course #6520

Architectural design and construction had its beginning when humans first modified their habitat to provide for shelter. Almost from the beginning Paleolithic caves were made more comfortable and even included wall painting. This creative need to both engineer shelter and apply art has made architecture one of the signature cultural barometers of civilization. Today, new examples of architectural expression, from trends in home design, new public projects, and especially exciting art museum designs are heralding changes and directions in modern art.
The purpose of this course is to give the novice architecture student an understanding of basic architectural design and drawing. They will study past and present building styles, architectural technical drawing, codes, and house plans. They will be able to read and understand basic house plans and begin using computer-aided drawing, CAD, in our new technical drawing lab.

Prerequisite: *Design and Drawing for Production*

COMPUTER

Computer Studies

Grade 9-12, 1/2 year, 1/2 credit, Factor 8, Course # 3830

This online course is offered to address the National Educational Technology Standards for Students. Unit topics include digital citizenship, research and information fluency, communication and collaboration, creativity and innovation and critical thinking. In the digital citizenship unit students explore their digital footprint, online privacy and security, cyberbullying and creative credit and copyright. In the research and information fluency unit students apply digital tools to gather, evaluate, and use electronic information.

Students can elect to be assigned a period in the computer lab during the school day after, or after first semester of freshmen year they may elect to do the coursework as an independent study program. A reliable computer and internet connection is necessary if the student elects to take the course as independent study.

Programming 1

Grade 9-12, 1/2 year, 1/2 credit, Factor 8, Course #3810

This course is designed to introduce students to the breadth of the field of computer science. Using problem solving techniques, algorithms and pseudocode, the course begins with a focus on the conceptual ideas of computing. Students then learn about web design and consider the associated societal and ethical issues. Finally, students receive an introduction to JavaScript through block coding, simple game design, and circuit board manipulation through app creation. The goal of this class is to develop computational thinking practices of algorithm development, problem solving and programming within the context of problems that are relevant to the lives of today's students.

Programming 2

Grade 9-12, 1/2 year, 1/2 credit, Factor 8, Course #3820

This course explores a deeper understanding of algorithms and computer languages. As an introduction to programming, students will use drag and drop software to have robots complete real life tasks. Students will then continue on to animation software and text based coding through action script game design. The course culminates in learning the Python language and graphic user interface (GUI) development. Students will be prepared to take the AP Computer Science courses during the following year.

Prerequisite: Successful Completion of Programming 1 or teacher recommendation

AP Computer Science A

Grade 10-12, 1 year, 1 credit, Factor 10, Course #3605C

This is a course in computer science using the Java programming language. This course will cover the fundamentals of programming syntax and methodology. Java is a modern, object-oriented programming language used to create professional software. In addition to gaining fluency in Java, students will develop general computer skills and consider the social and ethical implications of computing. The course will explore systematic problem-solving strategies that can be applied to real world problems. The course also prepares students to take the Advanced Placement Computer Science Exam.

Prerequisite: Successful completion of Programming 1 or Programming 2 or teacher recommendation

AP Computer Science Principles

Grades 10-12, 1 year, 1 credit, Factor 10, Course #3606

This course was developed to address a critical need for a broader range of students to gain exposure to computing in high school. Almost every field today – from the arts and media to lab sciences –requires an understanding of computing. Multidisciplinary in nature, the course teaches students to analyze problems, use creative thinking, and collaborate to investigate solutions to real-world issues using computing. More specifically, the course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. AP Computer Science Principles will help students develop a thorough grasp of the computing foundations and concepts relevant to college and career.

Prerequisite: Successful completion of Programming I or teacher recommendation

ENGLISH

Goals:

- To provide each student with a program that will ensure the maximum individual level of achievement in English.

- To provide a comprehensive study of English and prepare all students for Common Core Regents examination in English.

- To provide the reading, writing, listening and speaking skills students need to be college and career ready.

In order to accomplish these goals, the English Department provides leveled course work in grades 9 through 12. To preserve and maintain the integrity of Honors and Advanced Placement offerings and to attempt to ensure the success of the students, the teachers in the department will evaluate candidates based on specific criteria including independence, responsibility, reading and writing ability and prior grades in English classes. Students selected for these courses will experience challenging and demanding classes reflective of their weighted rank.

Selections:

- Students will register for courses and levels based on the recommendations of teachers and counselors.

- After the first marking period, students will be able to change levels **only** after consultation with guidance counselor, teacher, student and parent. Conferences concerning level changes may be advised or initiated prior to the end of the first marking period.

- Electives in English may not fulfill the four year English requirement.

- The guidance office will monitor students who concurrently take more than one course in the required English sequence (i.e., English 9, 10, 11, 12). If a student is failing one of those English courses at the end of the first marking period, the student will be required to drop one of the courses, usually the higher level.

Type and Amount of Work:

- The basic components of all English courses are reading, writing, grammar, research, academic vocabulary and class presentation.

- Specific accommodations are made for students with IEPs and 504s.

- Regents classes read rigorous fiction and nonfiction texts, master academic vocabulary, compose essays, prepare for the Common Core Regents examination in English and improve writing through grammar.
- All students complete research projects using MLA format.

- Honors classes engage in a deeper and broader study of literature and author's craft, write analytic compositions with less scaffolding, study more sophisticated grammatical structures to apply to their writing, engage in more frequent research projects and prepare for high stakes examinations.

- Dutchess Community College classes ***may occasionally*** be combined with AP classes.

Homework and Assessments:

Regular homework is required for ALL classes. All students have periodic vocabulary, writing, reading assignments and assessments. Teachers' grading systems are explained on their course syllabi.

English as a Second Language

Grade 9-12, 1 credit, Factor 7, Course #1550

English as a Second Language classes are offered to students with limited English proficiency because their first language is not English. This class may serve in lieu of only **ONE COURSE** in the four-year English sequence; however, to become proficient in English, students may need additional years of instruction without credit. Students are tested with the LAB-R to determine placement. The class concentrates on reading, writing, speaking and listening skills in English.

Common Core English 9 (Honors)

Grade 9, 1 year, 1 credit, Factor 9, Course #1101H

Honors students are expected to read above grade level and to have outstanding work habits. Honors students read rigorous selections of literature and nonfiction to sharpen analytical and critical thinking skills. Close reading, using textual evidence in writing, and developing academic vocabulary are stressed. Clarity and organization in writing are emphasized. Texts covered in class are used as springboards for research.

Less time is spent reviewing the basics of grammar and more emphasis is placed on application of grammatical principles to students' own writing. Academic vocabulary study is emphasized and generated by reading experience. Skills necessary for the Common Core Regents examination in English are introduced.

Prerequisite: Student must meet criteria in the Board of Education approved rubric.

Common Core English 9 (Regents)

Grade 9, 1 year, 1 credit, Factor 8, Course #1101

This course aims to improve interpretive skill in reading and introduce students to various genres of literature and nonfiction. Close reading and the use of textual evidence in writing and discussion is emphasized. Written work and research projects are connected to the reading.
Additionally, students develop the thinking and organizational skills they will need to succeed in the English strand of the high school curriculum. Students must meet established standards for

reading, writing and analysis. Skills necessary for the Common Core Regents examination in English are introduced.

Common Core English 10 (Honors)

Grade 10, 1 year, 1 credit, Factor 9, Course #1102H

This course is designed for students who have demonstrated competency above grade level in English 9. To improve student writing, grammar and composition, lessons are based on student work and professional exemplars. Academic vocabulary is based on the works studied.

Rigorous reading selections from genres including short story, novel, essay, biography, drama and poetry are presented. The student compares the techniques of writers who develop the same theme in two or more genres. The basic anthologies are supplemented by a variety of paperback selections and other readings.

Written work, including research, is closely allied to reading and emphasizes textual evidence. Clarity and organization are emphasized in all forms of writing.

Prerequisite: Successful completion of CC English 9. Common Core English 9 teacher's recommendation and high grades in *Common Core English 9 are also considered.*

Common Core English 10 (Regents)

Grade 10, 1 year, 1 credit, Factor 8, Course #1102

Rigorous fiction and nonfiction including the short story, novel, essay, biography, drama and poetry are studied. Students will identify literary devices and their significance in the text. The basic anthologies are supplemented with additional selections.

Written work is based on close reading of text. Students are taught to recognize various genres and are encouraged to develop an academic style of writing. Clarity, organization and evidence based writing are emphasized. Composition assignments require the application of the rules of standard English grammar and usage. Both developmental vocabulary and academic vocabulary are emphasized. Preparation for the Common Core Regents examination in English is continued.

AP English Language and Composition (Advanced Placement)

Grade 11, 1 year, 1 credit, Factor 10, Course #1603

The course provides the more mature and capable English student with a comprehensive study of American literature, its themes, archetypes, and major movements, with an emphasis on analyzing literary technique and developing interpretive skills. This course focuses on an increasingly refined level of both reading and writing in the various modes of discourse, enabling "students to read complex texts with understanding and to write prose of sufficient richness and complexity to communicate with mature readers" (AP course description). The course assumes that students already understand and use Standard English grammar. Both reading and writing assignments develop students' understanding and use of various rhetorical strategies.
The research project requires analysis of two major works of American literature. Extensive reading and writing are required.

The required AP Language and Composition Exam is given in early May. The AP exam in May **must** be taken in order to satisfy AP factor requirements. Additionally, students are required to take the Common Core Regents examination in English.

This course ***may qualify*** for Dutchess Community College credit. If the class is offered with Dutchess Community College credit, students must pass a placement examination at the end of 10th grade and take an **additional** Dutchess Community College final examination in May.

Prerequisite: Successful completion of Common Core English 10 and completion of a summer assignment. Teacher's recommendation, grades in Common Core English 10 and score on the DCC placement exam if offered are also considered.

Common Core English 11 (Regents)

Grade 11, 1 year, 1 credit, Factor 8, Course #1103

Common Core English 11 (Honors)

Grade 11, 1 year, 1 credit, Factor 9, Course #1103H

Students study American fiction and nonfiction. Literature and nonfiction focus on the overarching theme of the American Dream. The course continues the department's emphasis on reading on an analytical and evaluative level, producing evidence based writing, conducting authentic research and developing academic vocabulary. Grammar is taught through composition. Students learn to analyze author's style, trace the continuity of ideas reflected in American literature and develop sound composition skills. Academic vocabulary study is continued.

NOTE: Regents and Honors level students meet together. Students electing to pursue the Honors level (1103H) will fulfill a contract requiring additional reading, composition and presentation assignments. They are sometimes asked to present the results of this study to their classmates.

Prerequisite: Successful completion of Common Core English 10. A Teacher's recommendation and grades in Common Core English 10 are also considered.

AP English Literature and Composition (Advanced Placement)

Grade 12, 1 year, 1 credit, Factor 10, Course #1604

This course is designed to meet the needs of the more advanced English student who wishes to explore in depth composition and classic literature at the college level. The emphasis of the course is on experiencing, interpreting and evaluating works of recognized literary merit from the sixteenth century to the present, including poetry, drama, speeches, essays, journals, and fiction, both long and short. According to the AP catalogue, "the students' reading should be both wide and deep." Students will continue to develop their writing skills through short analytical pieces, essay exams, literary criticisms, and research projects. An understanding of the workings of English grammar and an ever-growing vocabulary are essential.

The required AP Literature and Composition Exam is given in May. The AP exam in May must be taken in order to satisfy AP factor requirements.

Prerequisite: Successful completion of English 11 CC or AP English Language and Composition (Advanced Placement) Completion of a summer assignment is required prior to the start of the class. *English 11* teacher's recommendation and grade in *AP English Language and Composition (Advanced Placement)/ English 11 (Honors) are also considered.*

World Literature (Regents)

Grade 12, 1 year, 1 credit, Factor 8, Course #1104

The literature in this course focuses on the individual and his/her role in society – past, present and future. Students read rigorous texts, conduct research and practice skills necessary for college and career readiness. Students are encouraged to actively engage with the text and respond to the literature in writing. The exit exam requires mastery and application of all high school English skills.

English 12H DUAL – Eng 101/102 – DCC

Grade 12, 1 year, 1 credit, Factor 9, Course #1104DCC, DCC Course #ENG101/102 (3 DCC credits per semester)

A student must achieve an 85 or better in the first three quarters of English 11 and an 85 or better on the NYS English Regents exam to be eligible for the DCC concurrent course. Only students who meet the criteria can enroll in the course. Students must enroll in both English 101 and English 102 to satisfy the high school requirement for graduation. A DCC final exam will be given to students at the end of semester 1 for English 101 and at the end of semester 2 for English 102.

This English 101/102 course gives high school students the opportunity to experience a challenging college level course while still in high school. Qualified students earn high school and college credit concurrently and college credit may be transferrable to most two and four year colleges and universities.

English 101 addresses the major principles of college writing, which are meant to serve students in all disciplines across the curriculum. The course concentrates on expository and argumentative writing, traditional rhetorical modes, and effective composing, revising and editing strategies. A research paper is required.

English 102 is a continuation of 101 with further study of the resources of the language through critical analysis of imaginative forms of writing. Emphasis is placed upon well-organized written composition, factually supported conclusions and awareness of language variety. Genre reading will include fiction, poetry, and drama.

Communications 1 (Elective)

Grade 10-12, 1/2 year, 1/2 credit, Factor 8, Course #15101

This course is designed as an elective. If the student so wishes, this course may be used, in part, to fulfill a fifth English credit for a 5-credit sequence for a Regents diploma. Communications 1 explores communication in written English.
Study includes creative writing, writing for the workplace, advertising and journalism. Creative writing assignments include character sketches, short stories, poems, and various creative exercises. Writing for the workplace assignments include resumes, memos and interviews.

During the journalism and advertising segments of the course, students write a news story, feature story, column and editorial. Papers are read aloud in class and discussed during the various stages of composition. Students create a portfolio as a final exam.

Communications 2 (Elective)

Grade 10-12, 1/2 year, 1/2 credit, Factor 8, Course #15102

Communications 2 develops visual literacy through the study of film, television and online communication. The video production segment of the class includes the "grammar" of video, lighting and camera techniques and the production and shooting of a video script. Students are required to do one research project as well as a final project.

Public Speaking Dual (Elective)

Grade 10-12, 1/2 year, 1/2 unit, Factor 8, Course #1520, DCC Course #SPE101 (3 DCC credits)

This course is a dual enrollment course. While fulfilling elective credit at Spackenkill, students also have the opportunity to earn three college credits through Dutchess Community College. The course is devoted to the study of oral communication as it relates to the speaker, her/his purpose, subject, outline, presentational aids, delivery, and audience. The first part of the course emphasizes the theory of public speaking, while the latter part is concerned with the analysis, preparation, and performance in the areas of informative, demonstrative, persuasive, and occasional speaking. The majority of the class will focus on the development and delivery of public speeches. In order to earn college credit, a student must maintain a 70 average.

The World of Sports Through its Literature (Elective)

Grade 10-12, 1/2 year, 1/2 credit, Factor 8, Course #1535

This course is an examination of sports, both amateur and professional, from the perspectives of sports columnists, commentators and contemporary authors. Readings will cover fiction and non-fiction, including biographies and commentaries, through which students will develop an awareness of sports as a source of literary thought and artistic writing as well as a chronicle and reflection of society. Writing will be descriptive, critical and personal. The course will require assigned readings and writing and may include a research project and/or a presentation and will have a final assessment.

SAT Prep English (Elective)

Grade 11, 1/2 year (1/4 credit English, 1/4credit Math) Must be taken with course #3565. Factor 0, Course #1565

SAT Prep English (Elective) Grade 11, 1/2 year, 1/4 credit, Factor 0, Course # 1565
This credit bearing course is the official commercial course offered by The Princeton Review. It is designed to teach the students techniques to improve their SAT scores. Math and verbal instruction is offered on alternate days. Students MUST enroll in both the Math and English strands of the course (Course #1565 and Course #3565). This course should be taken the semester immediately before the student expects to take the actual SAT. (For fall, the target SAT is January, for spring the target SAT is June.) IT IS HIGHLY RECOMMENDED THAT STUDENTS TAKING PRECALCULUS, TAKE THE COURSE IN THE FALL SEMESTER

AND STUDENTS TAKING COMMON CORE ALGEBRA II OR INTERMEDIATE ALGEBRA/TRIGONOMETRY TAKE THE COURSE SPRING SEMESTER.
Grading is done on a Pass/Fail basis. Three in-house administrations of practice SAT exams are required throughout the course to assess student progress.

English AIS

Grade 9-12, 1 year, 0 credits, Factor 0, Course #1705

This course identifies and remediates deficiencies in reading and writing that hamper students' success in English class and/or on the English Regents examination. Instruction is individualized in small classes to help students improve basic skills. Students are enrolled in AIS on the basis of the 8th grade ELA, teacher recommendation, or a failing grade on the Comprehensive Regents Examination in English taken in 11th grade and required for graduation. Students who fail the Regents exam are required to continue in AIS.

FOREIGN LANGUAGE

The Foreign Language Department offers courses in French and Spanish. Five grade levels are offered in each language. Students whose skills are weak may be recommended to repeat the current course before advancing to the next level.

The courses are conducted in French/Spanish, and students are expected to speak almost exclusively in the language.

In all courses, the emphasis is on aural and reading comprehension and oral and written expression. All courses also include a study of geography, history and the culture of the countries where the language is spoken. Audiovisual aids such as audio tapes, videos, films and filmstrips are used for enrichment and to provide students with the experience of hearing and understanding different native speakers. Homework will be assigned in all of the courses. Supplementary help is available from the staff of the Foreign Language Department. Advanced Placement exam opportunities are available to students in upper level courses, when recommended by the teacher.

Candidates for a Regents diploma must have one credit of Foreign Language credit. Beginning with the class of 2005, candidates for an Advanced Regents diploma must have 3 units of Foreign Language credit. (For certain exceptions, see your Guidance Counselor.)

French 1

Grade 9-12, 1 year, 1 credit, Factor 8, Course #5101

The introductory course in French encompasses the four basic skills of listening, speaking, reading and writing. Oral skills are emphasized and the class is largely conducted in French. A basic text is used, along with corresponding audio tapes, and videos for additional language exposure. Vocabulary, grammatical structure and aural/oral practice are the basis of the course, with culture and civilization integrated throughout the year. Homework assignments are given regularly and a final exam is given at the end of the year.

French 2

Grade 9-12, 1 year, 1 credit, Factor 8, Course #5102

Students in this course have already satisfactorily completed two years of French 1 in the middle school or 1 year of French in the high school.

Level 2 continues the four-skill approach to language learning (listening, speaking, reading and writing). The pace is accelerated as more advanced grammatical structures and idiomatic expressions are introduced. Cultural readings and activities continue to be integrated into the curriculum. The text is supplemented by corresponding audio cassettes and videos. A final exam is given at the end of the year.

French 3

Grade 10-12, 1 year, 1 credit, Factor 8, Course #5103

Grammar principles presented in French 2 are reviewed and more advanced grammatical constructions are introduced. In addition, students increase their vocabulary and cultural awareness through the use of reading selections and other authentic materials which are featured in the textbook. Emphasis is also placed on writing of letters and compositions, as well as speaking and reading comprehension in preparation for the Comprehensive exam in June.

French 4 (Honors)

Grade 11-12, 1 year, 1 credit, Factor 9, Course #5104H

French 4 is an Honors course which is conducted almost entirely in French. Students are expected to participate in class discussions every day and are judged on their individual level of improvement. Readings include authentic texts drawn from newspapers, magazines, on-line periodicals and literature in French. These readings provide students with colloquial vocabulary and a variety of practical, up-to-date topics for class discussions, creative writing and compositions. Grammar instruction includes the compound tenses as well as the subjunctive tense. Other grammatical topics are tailored to the needs of the students as determined by their composition work and communicative skills. A variety of French films are incorporated throughout the year to enhance cultural awareness and vocabulary building. There is a final school exam at the end of the year.

Prerequisite: Teacher's recommendation

French 5 (Honors)

Grade 11-12, 1 year, 1 credit, Factor 9, Course #5105H

AP French Language (Advanced Placement)

Grade 11-12, 1 year, 1 credit, Factor 10, Course #5105

AP French (level 5) may be taken for AP (factor 10) or Honors (factor 9) designation. Students who choose to take this course at the AP level must take the French Language and Culture AP examination in May. Students must have the recommendation of their teacher to take the course for the Advanced Placement or Honors designation.

French 5H/AP is a college-level course conducted almost entirely in French. The course material is organized by themes identified by the College Board. Students are required to read authentic texts from a variety of real-world sources including non-fiction and fiction, listen to broadcasts and watch videos in French, write well-organized essays, and do several oral presentations in class. As part of the coursework, students are expected to participate fully in class discussions; seek out and report on articles from French-language periodicals and web-sites, as well as prepare for regular in-class quizzes and examinations. Vocabulary enrichment and grammar accuracy are stressed throughout the year as necessary tools for correct expression in French. Students are exposed to the culture of French -speaking areas and countries around the world.

Spanish 1

Grade 9-12, 1 year, 1 credit, Factor 8, Course #5201

This is an introductory course designed to accustom the student to both the oral and written language, emphasizing listening and speaking skills, as well as developing reading and writing skills. The primary goal is to have students achieve functional communication in the second language. Students will also learn elementary grammatical and syntactical structures. Tapes are used in conjunction with the text, along with other authentic materials, to vary and expand the students' exposure.

All of the above is taught with frequent reference to the arts, history, lifestyles and traditions of Spain and Hispanic America.

Spanish 2

Grade 9-12, 1 year, 1 credit, Factor 8, Course #5202

Students in this course have satisfactorily completed two years of Spanish 1 in the middle school or one year of Spanish 1 in the high school. The emphasis is on continued oral proficiency, grammar fundamentals and reading skill. Many more verb tenses are added to those learned in Spanish 1 while vocabulary is increased to augment conversational and reading ability. The student's listening comprehension is enhanced by the use of tapes which accompany the text. Hispanic culture is an integral part of the curriculum.

There are daily homework assignments, frequent quizzes and chapter tests. The final exam is a school exam.

Spanish 3

Grade 10-12, 1 year, 1 credit, Factor 8, Course #5203

Grammar principles presented in Spanish 2 are reviewed and more advanced grammatical constructions are introduced. In addition, students increase their vocabulary and cultural awareness through the use of reading selections and other authentic materials which are featured in the textbook. Emphasis is also placed on writing of letters and compositions, as well as speaking and reading comprehension in preparation for the Comprehensive exam in June.

Spanish 4 (Honors)

Grade 11-12, 1 year, 1 credit, Factor 9, Course #5204H

Spanish 4 is an Honors course which is conducted almost entirely in Spanish. Students are expected to participate in class discussions every day and are judged on their individual level of improvement. Reading includes authentic texts drawn from newspapers, magazines, online periodicals and literature in Spanish. These readings provide students with colloquial vocabulary and a variety of practical, up-to-date topics for class discussions and creative writing and compositions. Other grammatical topics are tailored to the needs of the students as determined by their composition work and communicative skills.

A variety of Spanish films are incorporated throughout the year to enhance cultural awareness and vocabulary building. There is a final examination at the end of the year.

Prerequisite: Teacher's recommendation

Spanish 5 (Honors)

Grade 11-12, 1 year, 1 credit, Factor 9, Course #5205H

AP Spanish Language (Advanced Placement)

Grade 11-12, 1 year, 1 credit, Factor 10, Course #5205

AP Spanish (level 5) may be taken for AP (factor 10) or Honors (factor 9) designation. Students who choose to take this course at the AP level must take the Spanish Language and Culture AP Examination in May. Students must have the recommendation of their teacher to take the course for the Advanced Placement or Honors designation.

Spanish 5H/AP is a college-level course conducted almost entirely in Spanish. The course material is organized by themes identified by the College Board. Students are required to read authentic texts from a variety of real-world sources including non-fiction and fiction, listen to broadcasts and watch videos in Spanish, write well-organized essays, and do several oral presentations in class. As part of the coursework, students are expected to participate fully in class discussions, seek out and report on articles from Spanish-language periodicals and web-sites, as well as prepare for regular in-class quizzes and examinations. Vocabulary enrichment and grammar accuracy are stressed throughout the year as necessary tools for correct expression in Spanish. Students are exposed to the culture of Spanish-speaking areas and countries around the world.

HEALTH EDUCATION

Health

Grade 9-12, 1/2 year or 1 year, 1/2 credit, Factor 8, Course #7032

The Senior High School Health Education Program continues that of the middle school through the teaching of health areas with increased scope, depth and complexity. The instructional content in this grade is directed toward factors concerning mental, physical and social health as they influence the healthful living practices of the individual, the family, local and world communities.

THIS COURSE IS MANDATED BY THE STATE. The Board of Education has established a policy concerning exclusion from that part of the Health curriculum pertaining to aspects of the Family Life, Human Development strand. This policy is available upon request. Depending on students' needs and staffing availability, health may be offered every other day for a full year.

MATHEMATICS

Note: Grade levels for all math classes are based on prerequisites met and/or teacher recommendations.

Common Core Algebra I

Grade 9 generally, 1 year, 1 credit, Factor 8, Course #3101

This course prepares students for the Common Core Algebra exam, a requirement for a diploma. It will assist students in developing and choosing the appropriate skills and strategies that can be used to successfully solve problems in a variety of settings. Topics covered include the relationship between quantities, reasoning with equations and their graphs, descriptive statistics, linear and exponential functions, polynomial and quadratic expressions, equations and functions and modeling with equations and functions. This course culminates in June with the Regents examination. Graphing calculators will be integrated into the curriculum and will be available for in-class use. The recommended calculator is the TI-Nspire CX graphing calculator. The state does not allow the use of the TI-Nspire CX CAS calculator or any calculator with symbolic manipulation on the Regents examination.

Common Core Algebra XT-1

Grade 9 generally, 1 year, 1 credit, Factor 7, Course #3101A

Common Core Algebra XT-2

Grade 10 generally, 1 year, 1 credit, Factor 8, Course #3101B

This course is a 2-year program that prepares students for the Common Core Algebra exam, a requirement for a diploma. It will assist students in developing and choosing the appropriate skills and strategies that can be used to successfully solve problems in a variety of settings. Topics covered include the relationship between quantities, reasoning with equations and their graphs, descriptive statistics, linear and exponential functions, polynomial and quadratic expressions, equations and functions and modeling with equations and functions. A school-generated final exam will be given after the first year. This course culminates in June with a Regents examination administered at the end of Common Core Algebra XT-2. Students must meet established criteria in order to be eligible for the 2-year program. Graphing calculators will be integrated into the curriculum and will be available for in-class use. The recommended calculator is the TI-Nspire CX graphing calculator. The state does not allow the use of the TI-Nspire CX CAS calculator or any calculator with symbolic manipulation on the Regents examination.

Common Core Geometry Honors

Grade 9 generally, 1 year, 1 credit, Factor 9, Course #3102H

This course prepares students for the Common Core Geometry Regents exam which is required for an Advanced Regents diploma. Students will study congruence, proof and constructions,

right triangles and trigonometry, circles, expressing geometric properties with equations, geometric measurement and dimension and modeling with geometry.
They will be expected to present valid arguments justified by axioms, definitions and theorems. Additionally, this honors level course deals with some topics in greater depth of study and includes additional topics. Graphing calculators will be integrated into the curriculum and will be available for in-class use. The recommended calculator is the TI-Nspire CX graphing calculator. The state does not allow the use of the TI-Nspire CX CAS calculator or any calculator with symbolic manipulation on the Regents examination.

Prerequisite: Successful completion of Common Core Algebra I with a final average of at least 85 and/or teacher recommendation.

Common Core Geometry

Grade 10 generally, 1 year, 1 credit, Factor 8, Course #3102

This course prepares students for the Common Core Geometry Regents exam which is required for an Advanced Regents diploma. Students will study congruence, proof and constructions, right triangles and trigonometry, circles, expressing geometric properties with equations, geometric measurement and dimension and modeling with geometry. They will be expected to present valid arguments justified by axioms, definitions and theorems.
Graphing calculators will be integrated into the curriculum and will be available for in-class use. The recommended calculator is the TI-Nspire CX graphing calculator. The state does not allow the use of the TI-Nspire CX CAS calculator or any calculator with symbolic manipulation on the Regents examination.

Prerequisite: Successful completion of Common Core Algebra I

Common Core Geometry with Lab

Grade 10 generally, 1 year, 1 credit, Factor 8, Course #3102S

This course prepares students for the Common Core Geometry Regents exam which is required for an Advanced Regents diploma. An attached lab period allows students additional time to explore/discover concepts through labs and hands-on activities. Students will study congruence, proof and constructions, right triangles and trigonometry, circles, expressing geometric properties with equations, geometric measurement and dimension and model with geometry. They will be expected to present valid arguments justified by axioms, definitions and theorems.

Common Core Algebra II Honors

Grade 10 generally, 1 year, 1 credit, Factor 9, Course #3103H

This course is designed to provide in-depth coverage of the NYS Math curriculum in preparation for the Regents exam, which is required for an Advanced Regents diploma. The course focuses on polynomial, rational and radical relationships, complex numbers, trigonometric functions, exponential and logarithmic functions, and statistical inferences. Additionally, this honors level course deals with some topics in greater depth of study and includes additional topics. The course culminates in June with the Regents examination. Graphing calculators will be integrated into the curriculum and will be available for in-class use. The recommended calculator is the TI-

Nspire CX graphing calculator. The state does not allow the use of the TI-Nspire CX CAS calculator or any calculator with symbolic manipulation on the Regents examination.

Prerequisite: Successful completion of Common Core Geometry Honors with a final average of at least 85 and/or teacher recommendation.

Common Core Algebra II

Grade 11 generally, 1 year, 1 credit, Factor 8, Course #3103

This course is designed to provide in-depth coverage of the NYS Math curriculum in preparation for the Regents exam, which is required for an Advanced Regents diploma. The course focuses on polynomial, rational and radical relationships, complex numbers, trigonometric functions, exponential and logarithmic functions, and statistical inferences. The course culminates in June with the Regents examination. Graphing calculators will be integrated into the curriculum and will be available for in-class use. The recommended calculator is the TI-Nspire CX graphing calculator. The state does not allow the use of the TI-Nspire CX CAS calculator or any calculator with symbolic manipulation on the Regents examination.

Prerequisite: Successful completion of *Common Core Geometry Honors or Common Core Geometry.*

Common Core Algebra II with Lab

Grade 11 generally, 1 year, 1 credit, Factor 8, Course #3103S

This course is designed to provide in-depth coverage of the NYS Math curriculum in preparation for the Regents exam, which is required for an Advanced Regents diploma. During the attached lab period students will review pertinent skills from Algebra I and Geometry, and reinforce the most challenging topics found in Algebra II. The course focuses on polynomial, rational and radical relationships, complex numbers, trigonometric functions, exponential and logarithmic functions, and statistical inferences. The course culminates in June with the Regents examination. Graphing calculators will be integrated into the curriculum and will be available for in-class use.

Precalculus Honors

Grade 11-12, 1 year, 1 credit, Factor 9, Course #3104H

This course covers Precalculus and introductory Calculus topics. The majority of the course focuses on the concept of functions - including the study of linear, exponential, logarithmic, power, trigonometric and polynomial functions - and how they allow us to model the world around us. Students will learn to choose a combination of algebraic, graphical, and numerical methods, depending on which of these tools best fits the situation. They will also develop the algebraic and graphing calculator skills prerequisite for success in Calculus. Calculus topics include limits, definition of the derivative and rules of differentiation. A graphing calculator is required for use in this course. The recommended calculator is the TI-Nspire CX CAS which may be signed out by students. This course is NOT offered as a dual enrollment course.

Prerequisite: Successful completion of Common Core Algebra II Honors with a final average of at least at 80 and a minimum score of 85 on the Algebra II (Common Core) regents exam and/or teacher recommendation.

Precalculus Dual

Grade 11-12, 1 year, 1 credit, Factor 8, Course #3104, DCC Course #MAT185 (4 DCC credits)

This course is intended primarily for students planning to take calculus. Topics include a study of functions, specifically: linear, polynomial, rational, trigonometric, exponential, logarithmic, and inverse functions. Modeling, data analysis, conics and matrices are also explored. Conceptual understanding is emphasized and algebraic skills are reinforced throughout the course. A graphing calculator is required for this course; students may sign one out for the year.

Prerequisite: Successful completion of Common Core Algebra II or Common Core Algebra II Honors

AP Calculus BC (Advanced Placement)

Grade 12, 1 year, 1 credit, Factor 10, Course #3605BC

This course covers the material of Calculus AB and additional topics needed for Calculus BC such as parametric, polar and vector functions, Euler's Method, L'Hopital's Rule, improper integrals, and modeling with logistic differential equations. The AP portion concludes with an extensive study of sequences and series that includes the concepts of series, types of series, tests for convergence and divergence, Taylor and Maclaurin series, power series, radius and interval of convergence and the Lagrange error bound for Taylor polynomials. Topics covered following the AP exam may vary. Course credit will be awarded for either AB Calculus or BC Calculus, but not both. A graphing calculator is required for use in this course and on the AP exam. The recommended calculator is the TI-Nspire CX CAS which may be signed out by students. The AP exam in May is required. The AP exam in May must be taken in order to satisfy AP factor requirements.

Prerequisite: Precalculus Honors with at least an 85 average, and/or teacher recommendation.

Calculus 1H Dual

Grade 12, 1 year, 1 credit, Factor 9, Course #3610, DCC Course # MAT221 (4 DCC credits)

This course includes topics normally covered during the first semester of a three-semester sequence that develops calculus for the student planning to major in engineering, mathematics, or the sciences. Topics include the derivative, limits, continuity, differentiability, the definite integral, the Fundamental Theorem of Calculus, techniques of differentiation (including for transcendental functions), applications of differentiation, mathematical modeling and computer applications. A graphing calculator is required for this course; students may sign one out for the year. Students will also make use of Mathematica, a program to which they will have free access.

Pre-requisites and/or co-requisites: Precalculus with a grade of 80 or higher OR Precalculus Honors with a grade of 70 or higher

Applied Financial Mathematics

Grade 11-12, ½ year, ½ credit, Factor 8, Course #3525

This course is an alternative for those students who have completed *Common Core Algebra I* and is not intended to be a college prep course. The focal point of the course is the application of mathematics to real world settings. Students will develop problem solving and reasoning skills through their study of math in its "practical" use. Technology will be used throughout the course.

Prerequisite: Successful completion of Common Core Algebra I or Common Core Algebra XT2

Elementary Statistics

Grade 11-12, ½ year, ½ credit, Factor 8, Course #3510

In our data-driven society, an understanding of statistics is an important element of a well-rounded education. Statistics involves the collection, organization and interpretation of data. Students will gather, organize, display and summarize data. They will analyze the results, make predictions and study how to use data to make informed decisions.
Topics covered will include: sampling techniques and designs, appropriate graphical representation of data, analysis of center and spread, normal distributions, z-scores, and analysis of bivariate data.

Prerequisite: Successful completion of Integrated Algebra, Integrated Algebra XT2 or Common Core Algebra I

Intermediate Algebra

Grade 11-12, ½ year, ½ credit, Factor 8, Course #3515

This course is intended for students who are not taking *Common Core Algebra II* but need a third year of study to prepare them for basic college mathematics requirements. Topics will include factoring and solving algebraic equations, functions, rational expressions, radicals, complex numbers, and quadratics. There will be an emphasis on applications of these topics to real life situations. Technology will be used extensively throughout the course. The course will conclude at the end of the semester with a comprehensive final exam. Graphing calculators will be integrated into the curriculum and will be available for in-class use. To better prepare these students for their college math courses the required calculator for all assessments in this course is the TI-84 graphing calculator. Use of the TI-Nspire graphing calculator, or any calculator capable of symbolic manipulation, will not be allowed.

Prerequisite: Successful completion of Common Core Algebra I or Common Core Algebra XT2

Geometry in Action

Grade 11-12, ½ year, ½ credit, Factor 8, Course #3530

This project-based course consists of two units. The Geometry unit covers applications of surface area and volume as well as coordinate geometry. Students will create 3-dimensional shapes, design a package to fit a specific object, study tessellations, and explore transformations. In the second unit, Math Outside the Classroom, students will investigate the mathematics of a variety of topics such as sports, art, architecture, music, nature and photography. The course will conclude with a rubric-based final project and a written exam. Students who have taken and passed Geometry or Geometry with Lab are not eligible to take this class.

Prerequisite: Successful completion of Common Core Algebra I or Common Core Algebra XT2
Note: Students who have taken and passed Geometry or Geometry with Lab are not eligible to take this Geometry in Action.

Trigonometry

Grade 11-12, ½ year, ½ credit, Factor 8, Course #3520

This course is an alternative to Common Core Algebra II or Common Core Geometry for those students who have completed Integrated Algebra or Common Core Algebra I. It is recommended that the college-bound student choose this course as part of their third year of study to prepare them for basic college math requirements. Topics will include right triangle trigonometry, the unit circle, radians, trigonometric functions and notation, identities, solving trigonometric equations, graphing trigonometric functions, and the Laws of Sines and Cosines. There will be an emphasis on applications of these topics to real life situations. Technology will be used extensively throughout the course. The course will conclude at the end of the semester with a comprehensive final exam. Graphing calculators will be integrated into the curriculum and will be available for in-class use. To better prepare these students for their college math courses the required calculator for all assessments in this course is the TI-84 graphing calculator. Use of the TI-Nspire graphing calculator, or any calculator capable of symbolic manipulation, will not be allowed.

Prerequisite: Successful completion of Common Core Algebra I or Common Core Algebra XT2

Financial Literacy

Grade 11-12, ½ credit, Factor 8, Course #3505

A comprehensive personal finance course for seniors that teaches students how to make thoughtful, well-informed decisions about important aspects of personal finance such as the benefits of saving, benefits of compound interest, and the value and methods of money management. Students are exposed to documents dealing with topics such as taxes, banking, and credit. Students will learn how to establish, monitor, and keep good credit. Students will practice weighing costs and benefits of options through case studies when making choices about such things as budgeting, obtaining student and personal loans, insurance, housing, investments, savings, automobile purchasing and retirement. The course will also teach students to maneuver scams and potential schemes against them. Students practice these skills as they extend their understanding of the essential knowledge defined by the Standards of Learning for Economics

and Personal Finance. The course will also include speakers from the community that are financial experts.

This course can count for the ½ credit computer literacy requirement.

Math AIS

Grade 9-12, 1 year, 0 credit, Factor 0, Course #3705

This course is a required course for students who have not met established criteria on State Assessments.

SAT Prep Math

Grade 11, ½ year (1/4 credit Math, 1/4 credit English) Must be taken with course #3565 Factor 0, Course 1565

This credit bearing course is the official commercial course offered by The Princeton Review. It is designed to teach the students techniques to improve their SAT scores. Math and verbal instruction are offered on alternate days. Students MUST enroll in both the Math and English strands of the course (Course #1565 and Course #3565). This course should be taken the semester immediately before the student expects to take the actual SAT. (For fall, the target is January, for spring the target SAT is June.) IT IS HIGHLY RECOMMENDED THAT STUDENTS TAKING PRECALCULUS TAKE THE COURSE IN THE FALL SEMESTER AND STUDENTS TAKING COMMON CORE ALGEBRA II OR INTERMEDIATE ALGEBRA/TRIGONOMETRY TAKE THE COURSE IN THE SPRING SEMESTER. Grading is done on a Pass/Fail basis. Three in-house administrations of practice SAT exams are required throughout the course to assess student progress.

MUSIC EDUCATION

Music Theory

Grade 9-12, 1 year, 1 credit, Factor 8, Course #6740
Meets every day

Music Theory is a course designed for students who seek to enrich their knowledge of music fundamentals, including melody, harmony, rhythm, form and expression. Students will learn more about compositional methods and will compose music using Chromebooks and piano keyboards. This course is highly recommended for those who want to learn more about the building blocks of music.

Band, Chorus, Chamber Orchestra, and String Ensemble are elective musical organizations which provide opportunities for students to utilize and apply performance skills which have been developed through participation and musical study at the elementary and middle school levels. Enrollment in these ensembles must be by music teacher recommendation and/or student audition.

Woodwind, Brass and Percussion instrumentalists may register for Band only. String instrumentalists may register for Chamber Orchestra or String Ensemble only. Weekly music lessons beyond the assigned class period occur on a rotating schedule, i.e. other academic classes could be missed. Students are responsible for assigned work during the excused/missed class.

AP Music Theory

Grade 10-12, 1 year, 1 credit, Factor 10, Course #6690
Meets every day

The AP Music Theory course corresponds to one or two semesters of a typical introductory college music theory course that covers topics such as musicianship, theory, musical materials, and procedures. Musicianship skills, including dictation and other listening skills, sight singing, and harmony, are considered an important part of the course. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of tonal music that are heard or presented in a score. Development of aural skills is a primary objective. Performance is also part of the curriculum through the practice of sight singing. Students understand basic concepts and terminology by listening to and performing a wide variety of music. Notational skills, speed, and fluency with basic materials are also emphasized.

Prerequisite: Music Theory 1 or teacher recommendation. Students should be able to read and write musical notation, and it is strongly recommended that the student has acquired at least basic performance skills in voice or on an instrument.

Band

Grade 9-12, 1 year, 1 credit, Factor 8, Course #6720
Meets every day

Concert band is offered for students who wish to develop their playing, reading and theory skills. Students in concert band will meet every day first period. All students involved in this course

will increase their level of musicianship by paying attention to the areas of pitch, intonation, melody, harmony and rhythm. Besides learning musical concepts, this class also focuses on performing. Mandatory performances are the winter and spring concerts and PRISMS. Students will also have the opportunity to perform and be graded as a solo performer at the NYSSMA solo festival. Students who score high at this festival could possibly have the opportunity to perform at Area All-State and Conference All-State.

All students involved in this course are required to have their own instrument except in the case of large brass and woodwind instruments such as tuba or euphonium.

In class students will also be taught music theory skills, and musical terms that they will apply to their performances.

Any students who wish to participate in this course need to have previous instrumental experience either through our district feeder program or transfer from another music program. This course will culminate in a locally developed exam.

Students who show a high degree of proficiency on their instrument will have the opportunity to take part in other performing ensembles. The ensembles include Percussion Ensemble, Jazz Band, Pep Band and Drum Line. These groups are not credit courses but do give students an even more in depth musical experience.

Chorus

Grade 9-12, 1 year, 1 credit, Factor 8, Course #6710
Meets every day

Chorus is for students who desire to develop their vocal, music reading and theory skills, and who also understand that choral singing is a group effort that relies on each person working to his/her greatest potential. Students in chorus will have the opportunity to develop as a singer by increasing tone quality, intonation, breathing and sight-singing skills. They will have the opportunity to improve as a solo singer through lessons and participation at NYSSMA solo festival. They will grow as a team player, working with others in their class and vocal section to improve their own voice. They will be expected to perform in several concerts throughout the year as a member of the chorus.

In addition, students will be taught music reading and theory skills. Homework/class work will be assigned on a regular basis. It will also be expected that students practice their music, vocal techniques taught in class or lesson, and theory skills at home. Vocal skills develop through regular practice. Weekly music lessons beyond the assigned class period occur on a rotating schedule, i.e. other academic classes could be missed. Students are responsible for assigned work during the excused/missed class. This course will culminate in a locally developed exam.

Also available, by audition, is a position for an accompanist. Excellent pianists who need to earn a music credit may do so by being the regular accompanist, both in class and at concerts, for the chorus. Students interested in this position should have the following skills: strong sight-reading, ability to play SATB parts separately and together, ability to follow the choir director, strong independent practice habits, and flexibility in playing rubato style. See the choral teacher to schedule an audition.

Orchestra

Grade 9-12, 1 year, 1 credit, Factor 8, Course #6730
Meets every day

Students will continue to develop more advanced playing skills through the performance of literature suggested by New York State School Music Association.

Emphasis will be on introducing advanced scales, vibrato, shifting into upper registers, multi meters / complex rhythms, improvisation, professionalism, basic music theory and will meet music standards through the use of NYSSMA-rated repertoire.

This is a course for experienced players who have mastered the basic fundamental musical skills of playing a stringed instrument.

Students will be assessed based on the demonstration of proper technique and performance on their instrument, including written tests and playing exams. This course will culminate in a locally developed exam.

String Ensemble Honors

Grade 9-12, 1 year, 1 credit, Factor 9, Course #6735H
Meets every day
Students are required to complete a successful audition for entry into this ensemble. Students in grade 9 are welcome to audition for entry into the ensemble. If accepted, student enrollment in both orchestras is required for the 9th grade year (course #6735H and #6730) only.

Students will meet music standards by performing music literature of the most advanced level, as suggested by New York State School Music Association

In addition to performance, emphasis will be on learning modes, advanced scales in all octaves, improvisation, composition, advanced music theory and chamber music.

This is a course for highly advanced players who have mastered the basic fundamental musical skills of playing a stringed instrument. Students should be performing at a NYSSMA solo level 5-6.

Students will be assessed based on the demonstration of proper technique and performance on their instrument, including written tests and playing exams. This course will culminate in a locally developed exam.

Spackenkill High School String Ensemble
Entrance Requirements

1. Students will be expected to play their instrument demonstrating all the elements of good position with regard to their specific instrument.
2. Students will be expected to know all 15 major scales and be comfortable reading and sight-reading in all major and minor key signatures. Students will be expected to understand interval relationships between notes, especially half steps and whole steps. Students will also be expected to understand minor scales, including both how to

compute the relative minor from the major key and the three types of minor scales (natural, melodic, and harmonic minor).

3. Students will be expected to have a thorough understanding of reading and comprehending rhythms in all standard time signatures. Students should be able to play with a metronome and with a solidly developed sense of rhythmic independence.
4. Students will be expected to demonstrate substantial competency using all parts of the bow. Students must be able to apply this knowledge to the specific needs of the music. This includes playing with a wide range of dynamics as well as all the basic articulations (legato, staccato, martele, spiccato). Students must be able to produce a mature tone.
5. Students will be expected to demonstrate fluency in shifting through 5th position.
6. Students will be expected to demonstrate a highly developed sense of intonation and ease and comfort in the use of vibrato.

String Ensemble Audition Requirements**

All students are required to audition for entrance into the Spackenkill String Ensemble. Each student is responsible for signing up for a live audition for Mrs. Kaczynski. The HS audition dates will be announced. Please sign up for a time slot on those days.

**Auditions for the Spackenkill String Ensemble are open to students in grades 9-12.

1. Students must prepare a solo piece from the standard repertoire (approximately NYSSMA level 5 or 6).
2. Students must prepare orchestral excerpts that will be assigned by the teacher that demonstrate the skills listed in the entrance requirements.
3. Students must be prepared to play all 15 major scales in 2 octaves (violin, viola, cello). For bass players, students will play 3 scales in 2 octaves and the remainder in 1 octave. (you will perform 3 major scales)
4. Students must be prepared to sight-read.

PHYSICAL EDUCATION

State mandated physical education is a semester course which meets every other day. Students earn two units of study after passing eight semesters of participation. These two units are required for graduation.

Students in Physical Education are given a numeric grade and this grade is factored into their overall academic average. The grade is based on the four equally weighted components: skill demonstration/skill improvement, effort, participation and cognitive test average.

Grades 9 and 10

Grade 9-10, 1/2 year, 1/4 credit, Factor 8, Course #7009 and #7010
Meets every other day

Physical wellness and psychomotor skills are developed through a variety of activities. The curriculum focuses on maintaining a healthy lifestyle through the use of our Fitness Center and through various lifetime and team sport activities. This course will culminate in a locally developed department-wide exam.

Grade 11 and 12

Grade 11-12, 1/2 year, 1/4 credit, Factor 8, Course #7011 and #7012
Meets every other day

The program places heavy emphasis on lifetime activities. It includes units that will assist students in gaining a greater sense of community. Cooperative activities and CPR/AED certification are two of these units. Students develop personal fitness goals based on data from their fitness assessments. This course will culminate in a locally developed department-wide exam.

SCIENCE

Science courses are offered at several levels to meet the needs of our students. Students are strongly encouraged to take a course in each of the major science areas: Earth Science, Biology, Chemistry and Physics. All students must take a minimum of three years of science, one of which must be Regents Biology. Students who are completing this course sequence on a Regents level may elect to take Advance Placement Science courses.

All science courses are designed to provoke critical thinking and provide students with a better understanding of the world and universe. To attain these goals all students can expect an appropriate amount of written, reading, or study homework each night.

Laboratory experience is also an integral part of all science courses.

Regents Lab Reports

New York State Regents courses require at least 1200 minutes of "hands on" laboratory investigations with written reports. After each lab activity, the students are expected to submit a lab report as required by the teacher. The minimum requirements for each lab report are to be neat, complete, well written and include the purpose of the lab, a description of what occurred and a conclusion based on observed results.

Late Labs

Any lab report not submitted on time will be penalized as specified in the course expectations.

If a lab report is not received by the end of a quarter, the report will receive a grade of zero and an acceptable lab report must be turned in as required by NYS Regents policy.

A letter informing the parents of a student's failure to fulfill the lab requirements for the Regents Exam will be sent home prior to the Regents exam.

As stated by State Education Department Policy, any student not fulfilling the lab requirement will **NOT** be permitted to take the Regents Exam and will receive a grade of zero for that final test. This grade of zero will be averaged with the four quarters to obtain a course grade.

The Physical Setting: Earth Science (Regents)

Grade 9-12, 1 year, 1 credit, Factor 8, Course #4102

This course is designed for students to fulfill a Regents science requirement. Through laboratory inquiry the student will have a basic understanding of the earth processes, learn to think critically, and be ready to make intelligent, informed decisions about scientific and environmental problems. Students will be required to produce written lab reports which are necessary in order to take the Regents exam

Completion of 1 year of Common Core Algebra 1 is a consideration.

The Living Environment: Biology (Regents)

Grade 9-12, 1 year, 1 credit, Factor 8, Course #4101

This course fulfills the NYS requirements for Regents Science credit in the Living Environment area. Students will learn unity and diversity, physiology, genetics, ecology, and evolution. Students will be required to produce written lab reports which are necessary in order to take the Regents exam.

The Living Environment: Biology Honors (Regents)

Grade 9-12, 1 year, 1 credit, Factor 9, Course #4101H

This course is faster and more in depth than Regents Biology. The course will better prepare the students for an A.P. Biology course. This course will cover all of the topics of Regents Biology and fulfill the NYS requirement for Regents science credit in the Living Environment. This course should be selected by highly motivated science students who are planning to continue in the study of the sciences, including taking the A.P. course in Biology or preparing to be science majors in college.

9th graders should be currently enrolled in Geometry. Successful completion of Regents Earth Science and Common Core Algebra and a teacher recommendation are also considered.

The Physical Setting: Chemistry (Regents)

Grade 9-12, 1 year, 1 credit, Factor 8, Course #4103

This course is designed for all college bound students who have completed Regents Biology or are concurrently taking Regents Biology. It is an integral part of the four year science program and satisfies one of the sequence requirements for a Regents diploma. Students will be required to produce written lab reports which are necessary in order to take the Regents exam

Prerequisite: Successful completion of Living Environment and Earth Science.

Successful completion of Geometry or current enrollment in Geometry, Completion of 1 year of Common Core Algebra I and a teacher recommendation are also considered.

The Physical Setting: Chemistry Honors (Regents)

Grade 10-12, 1 year, 1 credit, Factor 9, Course #4103H

This course is faster-paced and more in-depth than Regents Chemistry. The course will better prepare the student for an A.P. Chemistry course. Topics are generally treated more mathematically than in Regents Chemistry. This course satisfies one of the sequence requirements for an Advanced Regents Diploma. This course should be selected by highly motivated science students who are planning to continue in the study of the sciences, including taking the A.P. course in Chemistry, or preparing to be science majors in college. Students will be required to produce written lab reports which are necessary in order to take the Regents exam

Successful completion of Common Core Geometry or current enrollment in Common Core Geometry and Completed 1 year of Common Core Algebra I are also considered.

The Physical Setting: Physics Honors (Regents)

Grade 11-12, 1 year, 1 credit, Factor 9, Course #4104H

This course is designed for college bound students who have completed Regents Biology and Regents Chemistry. It is an integral part of the four year science program and satisfies one of the sequence requirements for a Regents Diploma. Students will be required to produce written lab reports which are necessary in order to take the Regents exam

Prerequisite: Enrollment in Common Core Algebra II concurrently or successful completion of Algebra II

Enrollment in Regents Chemistry concurrently or successful completion of Regents Chemistry are also considered.

Forensic Science

Grade 10 – 12, 1 year, 1 credit, Factor 8, Course #4540

This course is designed to be taken as an elective for students who have fulfilled their regent's science requirements for graduation.

The class meets for one 40-minute period a day, and will consist primarily of lecture and crime scene based labs. In addition to magazine articles and various books, the students will complete independent reading and reports using the Internet and PowerPoint.

Prerequisite: Successful completion of the Living Environment Course and the Living Environment Regents and Successful completion of Regents Earth Science or Regents Chemistry.

Math, Science and Technology I and II

Grade 10-12, 1/2 year each, 1/2 credit each, Factor 7, Course #4550

MST is a hands-on, project based course where students will familiarize themselves with physical and digital tools and techniques through project based assignments. For some assignments, students will have some freedom in choosing their project, further developing skills/knowledge in a topic of their choice. Topics may include woodworking, electronics, puzzle and game design, 3D printing, community service, consumer science, catapults, bottle rockets, food science, and others.

Students will receive 1/2 science credit for each course.

Principles of Chemistry I and II

Grade 10 -12, 1/2 year each, 1/2 credit each, Factor 7, Course #45561 and Course #45562

Principals of Chemistry is a two-semester survey course that considers current topics in Chemistry. Students will develop presentation skills when reporting their findings for research and laboratory activities. Principles of Chemistry is a "hands-on" course designed for students who have successfully completed Regents Biology and/or Earth Science.

Principles of Physical Science I and II

Grade 10 -12, 1/2 year each, 1/2 credit each, Factor 7, Course #45551 and Course #45552

Principals of Physical Science is a two-semester survey course that considers current topics in Physics, Earth Science and Environmental Science. Students will develop presentation skills when reporting their findings for research and laboratory activities. Principles of Physical Science is a "hands-on" course designed for students who have successfully completed Regents Biology and/or Earth Science.

Science Research Class 10

Grade 10, 1 year, 1/2 credit, Factor 9, Course #4510

Science Research Class 11

Grade 11, 1 year, 1/2 credit, Factor 9, Course #4511

Science Research Class 12

Grade 12, 1 year, 1/2 credit, Factor 10, Course #4512

Science research is a three year program meeting the requirements set forth by the Science Research in the High School program offered through SUNY Albany. The program is for students who are willing to work hard and are interested in exploring a topic that is relevant to them. In addition to biological science and physical science, students can study behavioral, computer, earth and space science, mathematics and engineering.

Students selecting this course should be self-motivated, curious and independent learners.

Students enrolled in this program the first year will receive 0.5 credit (factor 9). Second year students will receive 0.5 credit (factor 9). Third year students will receive 0.5 credit (factor 10). This multiyear program will allow the student to choose a topic of study, develop connections to the real world of science and to produce a final project.

Prerequisite: Successful completion of grade 9 and teacher recommendation

Science AIS

Grade 9-12, 1 year, 0 credit, Factor 0, Course #4705

This remedial level course is aimed at correctly defining deficiencies and preparing students for the Regents Examinations in Science. Instruction is individualized in small classes to help students improve basic skills. Students who fail the exam are required to repeat the course until they pass it. Students are scheduled into these classes by teacher recommendation.

Advanced Placement Sciences

These courses are offered as an elective for students who have a keen interest in a special science subject area. These courses will delve deeply into aspects of topics encountered in Regents level science courses. Students who take these courses should include those students who will major in science or math in college and those students who will pursue careers in medicine or technical fields. Most concepts will be presented in a lecture format. Since college level texts are used, a superior reading skill will be essential for success in these courses. Laboratory work will include independent projects. Supplemental reading formal reports, oral presentations, etc., may be used to broaden the academic experience.

Students enrolled in these courses must take the appropriate Advanced Placement examination administered by the College Entrance Examination Board. The AP exam in May must be taken in order to satisfy AP factor requirements.

The level of these courses mandates high standards for admissions.

AP Biology Dual (Advanced Placement)

Grade 11-12, 1 year, 1 credit, Factor 10, Course #4601, DCC Course #BIO105/106 (4 DCC credits per semester)

This course of study will pursue in greater depth the major units of biology encountered in the college introductory course *Biology (Regents*). The approach in presenting the main concepts will be through lecture presentation, laboratory investigations and required supplemental readings. Superior reading skills are required.

Considerations:

1. *Successfully pass the course and the Regents exam of Regents Earth Science, Regents Biology, and Regents Chemistry.*
2. *Successful completion of Common Core Algebra 1 and Common Core Geometry or concurrently taking Common Core Geometry.*
3. *Teacher Recommendation.*

AP Chemistry (Advanced Placement)

Grade 11-12, 1 year, 1 credit, Factor 10, Course #4602

Areas of study in this course are: atomic structure; stoichiometry; chemical bonding; properties; oxidation-reduction reactions; kinetics; descriptive chemistry of elements; introduction to organic chemistry.

Solving problems and conducting laboratory experiments relating to these topics are integral parts of the course.

Considerations:

1. *Successfully pass the course and the Regents exam for Regents Earth Science, Regents Biology, Regents Chemistry, and Regents Physics or concurrently taking Regents Physics.*
2. *Successful completion of Common Core Algebra II or concurrently taking Common Core Algebra II.*
3. *Teacher Recommendation.*

AP Physics C: Mechanics, and Electricity and Magnetism (Advanced Placement)

Grade 12, 1 year, 1 credit, Factor 10, Course #4603

This course is a two semester university physics course in Newtonian Mechanics and Electricity & Magnetism, which includes calculus concepts and computation. Classes will be a combination of lecture, group problem solving/discussion, and experimentation. Formal lab reports will be required.

Considerations:

1. *Successfully pass the course and the Regents exam for Regents Earth Science, Regents Biology, Regents Chemistry and Regents Physics.*
2. *Successful completion of Calculus or concurrently taking Calculus.*
3. *Concurrently taking Pre-Calculus; with permission of instructor.*
4. *Teacher Recommendation.*

Project Lead the Way

Introduction to Engineering Design

Grade 9-12, 1 year, 1 credit, Factor 8, Course #4801

Introduction to Engineering Design (IED) is a course that is appropriate for all high school students who are interested in design and engineering. The major focus of the course is to expose students to design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. The course applies and develops secondary level knowledge in mathematics, science, and technology. IED gives students the opportunity to develop skills through activities, projects, and problem-based (APPB) learning. APPB-learning challenges students to continually hone their interpersonal skills, creative abilities and understanding of the design process. In addition, students use a state of art 3D solid modeling design software package to help them design solutions to solve proposed problems. Students will also learn how to document their work, and communicate their solutions to their peers and members of the professional community. Introduction to Engineering Design™ is the prerequisite for other pre-engineering courses which may be offered in the future.

The course of study includes:

- Design Process
- Modeling
- Sketching
- Measurement, Statistics, and Applied Geometry
- Presentation Design and Delivery
- Engineering Drawing Standards
- CAD Solid Modeling
- Reverse Engineering
- Consumer Product Design Innovation
- Marketing
- Graphic Design
- Engineering Ethics
- Virtual Design Teams

Prerequisites: Successful completion or concurrently enrolled in The Living Environment and Successful completion or concurrently enrolled in Common Core Algebra I

Principles of Engineering

Grade 10-12, 1 year, 1 Credit, Factor 9, Course #4802

This is an honors level course that explores many aspects of engineering principles to expose students to the different possibilities available to them in the engineering field. Successful completion of this course could qualify for college credit in some cases. Topics include mechanics, material properties, electronics, automation, and computer programming.

Students will develop skills in problem solving, research, and design through hands on experiences, collaboration, and presentation.

Prerequisites: Successful completion of Introduction to Engineering Design OR Successful completion or concurrently enrolled in Common Core Algebra II

Environmental Sustainability

Grade 11-12, 1 year, 1 Credit, Factor 8, Course #4803

Environmental Sustainability is an honors-level course that is designed to integrate content from Chemistry, Biology, Earth Science and Environmental Science. It is designed to follow one of the introductory engineering courses in the Project Lead the Way curriculum. The course involves finding solutions to real-world problems including: pollution, genetically modified organisms, alternate forms of energy and water quality. Students who maintain an 85 average and achieve mastery on the Project Lead the Way Final Examination are eligible for college credit. Typically, students enrolled in this course will have successfully completed an introductory course in engineering, biology and chemistry.

SOCIAL STUDIES

Students must complete four units of study. The program for Grades 9 and 10 is two one-year courses in global history organized around major historical periods of the world. The curriculum for each time period contains sections on geographic settings, dynamics of political change, economic development, cultural achievement, and global relationships.

Juniors – The program for grade 11 is a one-year course in United States History and Government. Juniors may participate in an Advanced Placement United States History course. Juniors may choose from a program of elective courses as well.

Seniors - The fourth credit consists of two mandated one-semester courses, Participation in Government and Economics. Seniors may enroll in Honors Economics and Honors Participation in Government.

AP and Honors - To preserve and maintain the integrity of Advanced Placement and Honors social studies offerings, and to ensure the success of students in these courses, candidates will be evaluated based on specific criteria including, but not limited to, teacher recommendations and performance in prerequisite courses. Students selected to take these courses will experience a challenging and demanding course that emulates college level instruction reflective of the weighted rank of the course.

Global History and Geography 9

Grade 9, 1 year, 1 credit, Factor 8, Course #2101

Global History 9 covers the first half of a two year study of world history and geography. Grade 9 includes units on basic terms and concepts of social studies and a chronological study of global history from prehistoric humans through the age of absolutism in Europe. The Global History 9 course will conclude with a locally developed department wide examination.

Global History and Geography 10

Grade 10, 1 year, 1 credit, Factor 8, Course #2102

The Grade 10 course continues the chronological study of history. It focuses on more recent historical periods beginning with the French Revolution and concluding with the events of the contemporary world. For a diploma, students are required to pass the Regents Examination at the conclusion of Global History 10.

United States History and Government 11

Grade 11, 1 year, 1 credit, Factor 8, Course #2103

Grade 11 is a chronologically organized course in United States History and Government. The course begins with colonial foundations and concludes with contemporary events and issues. Constitutional and legal issues are developed as well as issues of international involvement.

Students are required to pass the Regents exam in US History and Government.

AP United States History and Government (Advanced Placement)

Grade 11-12, 1 year, 1 credit, Factor 10, Course #2603

The Advanced Placement course in United States History is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the problems and materials in United States History. The course prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses in United States History.

This course differs from other United States History courses in its depth and difficulty. Students who select this course should be willing to express their ideas in class, be interested in history, like to read, and be good students in English Composition. An average of one hour of homework a night is required. The course is offered to those students in grade eleven who are interested in an advanced course in United States History leading to a Regents diploma and potential college credit for successfully completing the required Advanced Placement Exam.

Students are required to pass the Regents exam in US History and Government.

The AP exam in May must be taken in order to satisfy AP factor requirements.

Qualified eleventh and twelfth grade students will be evaluated based on specific criteria including, but not limited to, teacher recommendations and performance in prerequisite courses to this program with the approval of the instructor and if room in the class exists.

AP European History (Advanced Placement)

Grade 12, 1 year, 1 credit, Factor 10, Course #2605

This course offers an opportunity to learn the ideas and events that shaped the European experiences from the Renaissance to the late 20th century (1450 - the present). Students are expected to be familiar with the general ideas and topics of modern European history. They should be able to express more detailed knowledge in oral and written discussions. The course focuses on social and economic change, political and military themes, and cultural and intellectual ideas. Emphasis is placed on student discussions, college text readings, primary source readings and several short position papers.

Students who select this course should be willing to express their ideas in class, be interested in history, like to read, and be good students in English Composition.

Qualified eleventh and twelfth grade students will be evaluated based on specific criteria including, but not limited to, teacher recommendations and performance in prerequisite courses to this program with the approval of the instructor and if room in the class exists.

The AP exam in May must be taken in order to satisfy AP factor requirements.

Participation in Government

Grade 12, 1/2 year, 1/2 credit, Factor 8, Course #2124
This is a required course.

One semester of the grade twelve programs is a course in Participation in Government. This course emphasizes the interaction between citizens and government at all levels: local, state and federal. The development of student participation in the process of government is encouraged. The Participation in Government course will conclude with a locally developed department wide examination.

Participation in Government Honors Dual

Grade 12, 1/2 year, 1/2 credit, Factor 9, Course #2124H, DCC Course #GOV121 (3 DCC credits)

This course deals with the philosophy, structure, functions and processes of our national government. Topics include the methods of political and historical analysis, the machinery of government, the political process and political behavior. Historical events and personalities in American politics will be used to illustrate the issues and processes of American government. The Participation in Government course will conclude with a locally developed department wide examination.

Qualified twelfth grade students will be evaluated based on criteria including, but not limited to, teacher recommendations and performance in prerequisite courses to this program with the approval of the instructor and if room in the class exists.

Economics

Grade 12, 1/2 year, 1/2 credit, Factor 8, Course #2114
This is a required course.

One semester of the grade twelve programs is a course in economics and economic decision making. This course includes the basic economic concepts and understanding which all persons need to function effectively and intelligently as citizens and participants in the economy of the United States and the world. The Economics course will conclude with a locally developed department wide examination.

Economics (Honors)

Grade 12, 1/2 year, 1/2 credit, Factor 9, Course #2114H

This course conducts an in-depth analysis of a variety of economic issues and institutions. Examples include analyzing the budget deficit, social policy, and the role of the Federal Reserve in combating inflation and recession. The course also examines how the globalization of the economy will bring competitive pressures and new opportunities. Term papers, projects and reports are part of the requirements. The Economics course will conclude with a locally developed department wide examination.

Qualified twelfth grade students will be evaluated based on criteria including, but not limited to, teacher recommendations and performance in prerequisite courses to this program with the approval of the instructor and if room in the class exists.

Psychology (Elective)

Grade 11-12, 1/2 year, 1/2 credit, Factor 8, Course #2510

This course is a study of some of the basic principles of psychology. This course will also include an examination of current applications in contemporary psychology. The Psychology course will conclude with a locally developed department wide examination.

Sociology (Elective)

Grade 11-12, 1/2 year, 1/2 credit, Factor 8, Course #2505

Analysis and discussion of relevant findings about human behavior, including such topics as peer pressure, family, marriage, society and other institutions.

Nazi Germany and the Holocaust (Elective)

Grade 10-12, 1/2 year, 1/2 credit, Factor 8, Course #2520

This course seeks to examine the genocide that took place during the Second World War within the larger context of anti-Semitism and racism in Europe. We will trace the origins of anti-Semitism, the National Socialist movement and the rise of Adolf Hitler to supreme power in Germany. In addition, we will study the social and political structure of Nazi Germany as it increasingly excluded "undesirable" elements from society. The eventual establishment of a Jewish homeland, the search for Nazi war criminals, and the post-war Nuremburg Trials will also be considered. Lastly, the class will embark on an analysis of Neo-Nazism in modern society.

Social Studies AIS

Grade 9-12, 1 year, 0 credit, Factor 0, Course #2705

This course will be required for students who fail or are at risk of failing the Global History or the US History Regents Exam.

DUTCHESS BOCES
CAREER & TECHNICAL INSTITUTE
2021-2022 COURSE OFFERINGS

* Please note that CTI Courses are not currently National Collegiate Athletic Association (NCAA) approved.

Career Exploration

Career Exploratory Program - This course is geared for students in 10th and/or 11th grade who are classified with disabilities pursuing a Regents Diploma or CDOS Credential. Students will be given a foundation in career skills and will explore a number of career options. Additional services include career counseling, career research and work based learning opportunities. Upon successful completion, students may enter CTE programming.

Agriculture

Small Engine Technology I & II - This program offers students entry level skills in small engine operation, maintenance, and repair. Second year students will focus on the operation, maintenance, and repair of lawn/garden equipment and recreational vehicles. Students who successfully complete courses I and II will be eligible for one unit of Math credit.

Careers in Animal & Plant Sciences I & II - Students will develop an understanding of the diverse and profitable fields of Agriculture. A variety of topics are covered including plant and animal biology and technology, food science and safety, wildlife management and environmental conservation, agricultural research, college and career exploration. This program emphasizes hands-on experiences with on-site projects, guest visitors, work placements and related field trips to businesses, organizations, colleges and industry events. Students have the option of choosing the animal or plant track in their second year.

Architecture & Construction

Construction Trades I & II - This program includes coursework in building construction, finish carpentry, masonry, plumbing and basic electricity. Students will be introduced to the tools, methods, and skills needed to gain entry level employment in the construction industry. Students who successfully complete courses I and II will be eligible for one unit of Math credit.

Electrical Construction Technology I & II - This program provides students entry level skills in construction electricity. Courses emphasize job safety, electrical theory, electrical calculations, work ethic, proper tool use and exposure to professional opportunities within the trade. First year focus is on residential installations, followed by second year directed at commercial and industrial installations. Students who successfully complete courses I and II will be eligible for one unit of Math credit and one unit of Science credit. Students must provide hand tools and code book.

Welding & Fabrication I & II – This program will help students develop entry level skills needed for careers in the welding and steel fabrication industry.

Arts, Technology & Communication

Graphic Design I & II - Students will be given the opportunity to explore the exciting world of Graphic Arts, Graphic Design, and Multimedia Arts. Students enrolled in this program will develop skills and workplace competencies while exploring the many facets of communication careers. Students use a hands-on learning approach where the emphasis is placed on problem solving skills and communication techniques and processes.

Film Production I & II - This course is an introduction to the field of film and video production. It familiarizes students with the basic principles, theories and techniques in video production. Students will construct storyboards, write scripts, direct shoots, and edit their own projects using equipment provided by the CTI.

Education

Early Childhood Education I - This program provides students with an understanding of the physical, social and mental development of children ages birth to eight. Students will participate in off-site classroom internships.

Early Childhood Education II - This program prepares students to work under the general supervision of a licensed Teacher. Students will cover a range of topics related to pedagogy. Early Childhood Education is recommended prior to Early Childhood Education II. Students who successfully complete courses I and II will be eligible for one unit of Math credit.

Health Sciences

Introduction to Health Occupations – This one-year course is recommended during the student's junior year and includes core competencies specific to the Health Occupations. Students will be given an opportunity to explore various health care fields. Introduction to Health Occupations is strongly recommended before taking the Nursing Assistant (CNA) course. Second year option is the Nursing Assistant program.

Nursing Assistant - This one-year course for seniors introduces the student to the foundation skills necessary for the study of Nursing. Successful students qualify to take the CNA exam. Successful completion satisfies the health requirement for high school graduation. Students completing the program are eligible for one unit of science credit. No academic pullouts available for this course. *Important Notes:* Introduction to Health Occupations is strongly recommended before taking Nursing Assistant; work maturity skills essential to success in the Nursing Assistant program.

Hospitality & Tourism

Culinary Arts /Restaurant Management I & II - This program for juniors and/or seniors introduces the student to skills in food preparation, baking and pastry arts, safety and sanitation, and culinary hospitality. Students who successfully complete courses I and II will be eligible for one unit of Math credit.

Human Services

Cosmetology I & II - This is a two-year program. Students learn the care of hair, nails and skin. Students completing both years of the program are eligible for one unit of Science credit. Good attendance is essential. Students who successfully complete the program with at least 1000 hours are eligible to take the New York State cosmetology license exam. No academic

pullouts are available for this class. Successful completion of this program will require students to complete off-site internships. Students who successfully complete courses I and II will be eligible for one unit of Science credit.

Information Technology

Computer Networking – This class is designed to provide the student with the technical knowledge required to obtain an entry level job in the field of computer network installation and maintenance. While Computer Hardware Technology is not required as a prerequisite, basic knowledge of the workings of computers will make this class more accessible. Students who successfully complete Computer Hardware Technology and Computer Networking will be eligible for one unit of Math credit.

Computer Hardware Technology - (Formerly called A+ Computer Repair.) This class is designed to provide the student with the technical knowledge and skills required for an entry-level position in the information and computer technology career field. Additionally, students will be prepared to take the A + Industry Certification Exam. Students who successfully complete Computer Hardware Technology and Computer Networking will be eligible for one unit of Math credit.

Law and Public Safety

Security & Law Enforcement I - This program introduces the student to the basic concepts of security and public safety, including homeland security, executive protection, and disaster preparedness.

Security & Law Enforcement II - This program introduces the student to the theory and practical applications of law enforcement and criminal justice.

Transportation

Automotive Technology I & II - This is an exploration of various segments of the automotive field, including in the second year, electronics, on-board computers, OBD I & II, transmissions, drive line and clutches, and engine service. Students who successfully complete courses I and II will be eligible for one unit of Math credit.

Related Academics

Career Literacy (CTE English) - All programs offer .5 credit per year in high school English, with the exception of Career Exploratory.

MST - This pullout Math-Science-Technology Program fulfills the requirement for a third unit of Math or Science credit.

Integrated/Specialized Science and Math - as indicated.

For more details on our programs, please visit our website www.dcboces.org/CTI or call 845.486.8001.